

---

## EDEN AREA GENERAL PLAN

---



---

County of Alameda | March 30, 2010



**Alameda County Community Development Agency**

EDEN AREA GENERAL PLAN

County of Alameda | March 30, 2010

**Alameda County Community Development Agency**

224 West Winton Avenue, Room 110  
Hayward, California 94544

Tel: 510.670.5333  
Fax: 510.670.6374



**DESIGN, COMMUNITY & ENVIRONMENT**

1625 SHATTUCK AVENUE, SUITE 300  
BERKELEY, CALIFORNIA 94709

TEL: 510 848 3815  
FAX: 510 848 4315

in association with  
Fehr & Peers  
Illingworth & Rodkin, Inc.

Bay Area Economics  
Jay Claiborne

# TABLE OF CONTENTS

1. INTRODUCTION .....	1-1
2. VISION .....	2-1
3. LAND USE ELEMENT .....	3-1
4. CIRCULATION ELEMENT .....	4-1
5. PARKS AND RECREATION ELEMENT .....	5-1
6. PUBLIC FACILITIES AND SERVICES ELEMENT.....	6-1
7. NOISE ELEMENT.....	7-1
8. PUBLIC SAFETY ELEMENT .....	8-1
9. GREENHOUSE GAS ACTION ELEMENT .....	9-1
10. GLOSSARY AND ACRONYMS.....	10-1
11. LIST OF PREPARERS.....	11-1

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
TABLE OF CONTENTS

*List of Figures*

Figure 1-1	Regional Location.....	1-3
Figure 1-2	Planning Area.....	1-4
Figure 1-3	General Plan Components .....	1-23
Figure 2-1	Neighborhoods, Corridors and Districts .....	2-3
Figure 3-1	Existing Land Use.....	3-5
Figure 3-2	Existing Land Uses .....	3-7
Figure 3-3	Urban Design Framework .....	3-14
Figure 3-4a	General Plan Land Use Designations .....	3-15
Figure 3-4b	General Plan Land Use Residential Overlays .....	3-17
Figure 3-5	Specific Guidance Areas .....	3-58
Figure 4-1	Roadway Network.....	4-3
Figure 4-2	Truck Routes.....	4-8
Figure 4-3	Existing Transit Facilities .....	4-10
Figure 4-4	Existing and Proposed Bicycle Network.....	4-16
Figure 5-1	Parks and Open Space In and Adjacent to the Eden Area .....	5-6
Figure 7-1	Land Use Compatibility for Community Noise Environment .....	7-8
Figure 7-2	Noise Exposure Contours .....	7-19
Figure 7-3	Noise Monitoring Locations .....	7-20
Figure 8-1	Regional Faults .....	8-6
Figure 8-2	Secondary Seismic Hazards .....	8-8
Figure 8-3	Alquist-Priolo Zones in the Eden Area.....	8-9
Figure 8-4	100 & 500 Year FEMA Flood Zones .....	8-16

*List of Tables*

Table 1-1	Population by Race and Ethnicity in the Eden Area, 2000 .....	1-11
Table 1-2	Median Age and Income by Neighborhood .....	1-12
Table 1-3	Educational Attainment .....	1-13
Table 1-4	Occupation of Employed Residents in the Eden Area .....	1-14
Table 1-5	Local Economic Base.....	1-15
Table 3-1	Existing Land Use in the Eden Area .....	3-7
Table 3-2	Acres by Land Use Designation.....	3-24
Table 4-1	Daily Traffic Volumes.....	4-19
Table 4-2	Intersection Level of Service Definitions .....	4-20
Table 4-3	Study Intersections: Peak Hour Level of Service .....	4-22
Table 5-1	Eden Area HARD Recreation Facilities .....	5-5
Table 6-1	Calls to ACFD for Service in the Eden Area FY 2002- 2003 .....	6-11
Table 6-2	Student-to-Teacher Ratios for Alameda County School Districts for 2007-2008.....	6-23
Table 6-3	Summary of SLZUSD School Sites.....	6-24
Table 6-4	SLZUSD Leased School Sites .....	6-26
Table 6-5	Waste Disposal and Diversion, by Jurisdiction.....	6-30
Table 7-1	Definitions of Acoustical Terms .....	7-3
Table 7-2	Typical Sound Levels .....	7-4
Table 7-3A	Non-Commercial <sup>a</sup> Noise Ordinance Limits .....	7-11
Table 7-3B	Commercial Noise Ordinance Limits.....	7-11
Table 7-4	Federal Noise Abatement Criteria.....	7-14
Table 7-5	Noise Measurement Summary .....	7-18
Table 8-1	Modified Mercalli and Richter Scales.....	8-4

**COUNTY OF ALAMEDA**  
**EDEN AREA GENERAL PLAN**  
TABLE OF CONTENTS

## I INTRODUCTION

This General Plan will steer development in the Eden Area through 2025. It is guided by the vision that Eden Area residents expressed in the General Plan update process for how they would like to see the Eden Area evolve. This General Plan includes a policy framework, which is informed by a discussion of the key development issues facing the area. The policy framework is made up of goals, policies and actions that will guide decisions about the location, type and design of development in the Eden Area over the life of the General Plan.

### A. *Vision*

The section below describes the vision for the future of the Eden Area, as envisioned by residents of the area. The vision for the Eden Area's future was developed through public participation at community workshops. A detailed vision statement and list of main priorities for the General Plan are provided in Chapter 2 of this document.

Through the year 2025, the Eden Area of Alameda County should emerge as one of the most livable communities in the greater San Francisco Bay Area and become a great place to live, work and do business. Drawing on its rich history, the Eden Area will provide a bright future of opportunities for growth and advancement. The Eden Area will be an attractive and vibrant place, enhanced by the creation of lively districts where residents can live, shop, walk, eat, gather and play. The Eden Area will provide renewed residential areas, affordable neighborhoods with housing choices that fit the needs of all residents, and investment in the economic development of the community to revitalize underutilized districts and transportation corridors. Eden Area residents will enjoy safe streets with a comprehensive network of bicycle lanes and enhanced bus transportation along corridors that is convenient and frequent. Expanded parks and recreation opportunities will serve the needs of all residents.

Growth should be managed to bring in needed benefits while preserving the important qualities of the Eden Area. New development ought to be pedestrian- and transit-oriented; properties and streets should be repaired and enhanced. All stakeholders will continue to have the opportunity to participate in the land use

decision-making process to balance community needs and values with the rights of individuals.

### *B. About the Eden Area*



*View of the Eden Area*

The Eden Area has been influenced by many different cultures over the generations and has had many different functions in the region, beginning as an agricultural center then evolving into residential neighborhoods with industrial manufacturing areas and commercial corridors as the economy has demanded. The Eden Area is just under eight square miles. Much of the terrain is flat or gently sloped. However, the eastern portion of the Eden Area stretches into the East Bay Hills. To the west, a small portion of the Eden Area touches the San Francisco Bay.

#### **1. Planning Area**

The Eden Area consists of unincorporated land in western Alameda County between the cities of San Leandro and Hayward and west of the County's Castro Valley planning area as shown in Figure 1-1.

Historically, Castro Valley was also part of Eden Township. In the 1966 County General Plan, the Eden Planning Unit was comprised of the Castro Valley Planning Area, the Hayward Planning Area, and the San Leandro Planning Area. Eventually, as the population grew and area began to develop, the County prepared the Castro Valley Plan to serve as a general policy guide for public and private decisions affecting the development of the Castro Valley area. The whole of the Eden Area became the communities of Ashland, Cherryland, Hayward Acres, El Portal Ridge, Fairmont Campus, Hillcrest Knolls, Mt. Eden, San Lorenzo, and Fairview.

The Eden Area is now comprised of four communities as shown in Figure 1-2. While these areas are unique in some ways, they have many commonalities and

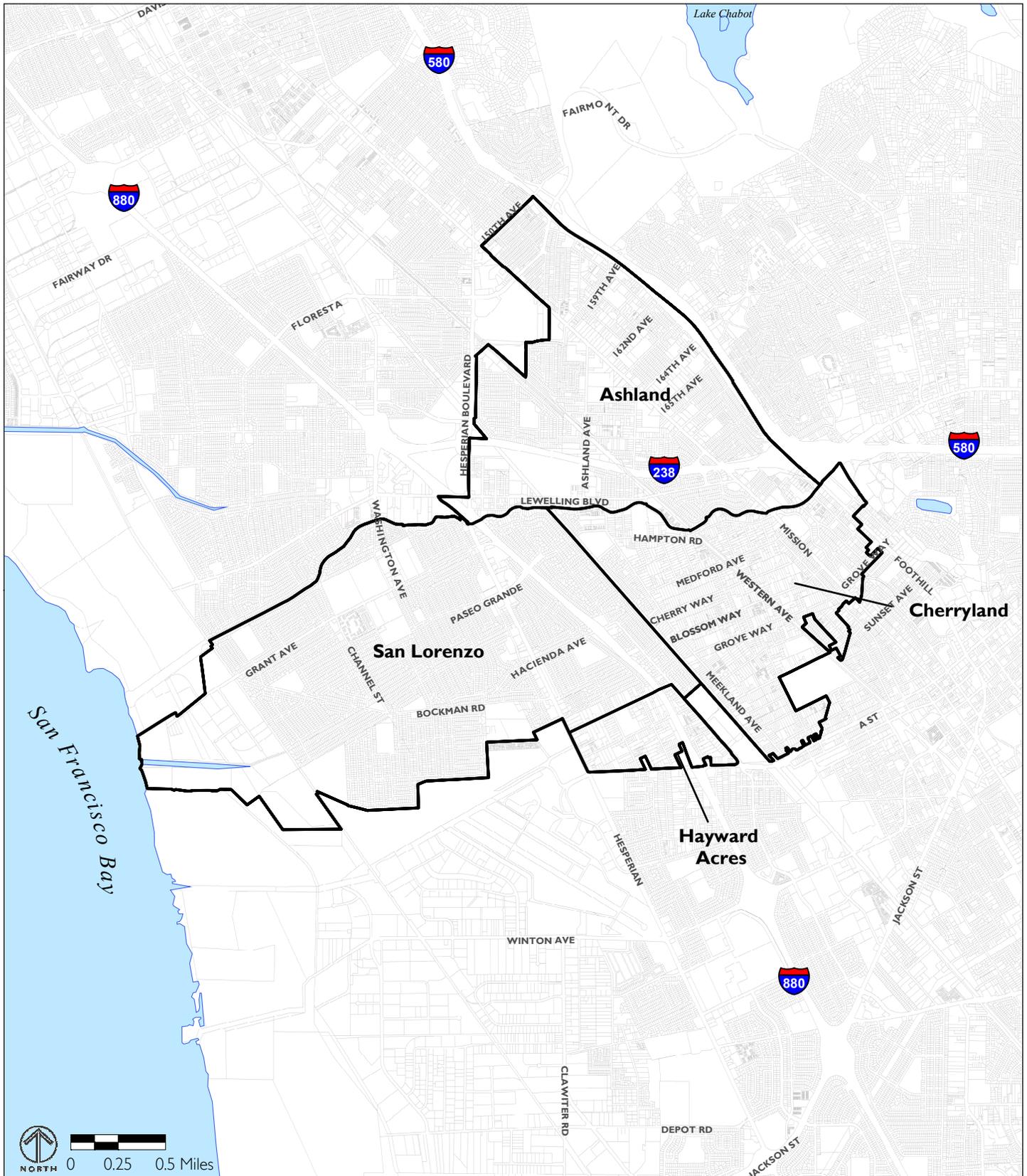


Source: Design, Community & Environment, February 2005.

**FIGURE 1-1**

**REGIONAL LOCATION**

**COUNTY OF ALAMEDA**  
**EDEN AREA GENERAL PLAN**



Source: Alameda County Community Development Agency

**FIGURE 1-2**

 **Study Area Boundary**

**PLANNING AREA**

are interdependent economically; thus most policies and actions apply to all areas. Following is a description of each community:

- ◆ **Ashland.** The Ashland community was developed in the 1940s and is named for the Oregon tree. Ashland is bounded on the east by Interstate 580, on the south by San Lorenzo Creek, and on the north and west by the City of San Leandro along Hesperian Boulevard, the Bayfair Shopping Center and the Bayfair BART Station. The prominent parcel pattern consists of relatively large blocks of properties which, prior to their development, were remnants of the small farms, orchards and nurseries. Ashland is centered around Edendale Park, Ashland Avenue, and East 14<sup>th</sup> Street. East 14<sup>th</sup> Street is the main commercial corridor, serving as the “spine” of the Ashland community. The major road corridors have some higher-intensity development than the rest of the predominantly single-family area. However, there remain areas with very low-intensity development, such as car-wrecking establishments that present opportunities for redevelopment.
- ◆ **Cherryland.** The Cherryland community is generally characterized by a series of east-west streets forming a grid of large blocks typically made up of narrow, deep parcels, many of which were small orchards, greenhouses, and farms until the 1940s and '50s. Most of the east-west streets intersect with the Union Pacific Railroad tracks at grade. Cherryland also includes the hillside neighborhoods east of Mission Boulevard to Foothill Boulevard. The area’s transition to residential development did not include all of the amenities that residential neighborhoods usually include, such as sidewalks and street trees. These are in the process of being developed through the redevelopment process.
- ◆ **Hayward Acres.** The Hayward Acres community is a relatively small portion of the Eden Area located between the San Lorenzo community and the City of Hayward. It is bounded on the north by Bartlett Avenue, on the south by West ‘A’ Street, on the east by Hathaway Avenue, and on the west by Hesperian Boulevard.
- ◆ **San Lorenzo.** The San Lorenzo community is the largest of the Eden Area communities in size and extends beyond San Lorenzo Creek on the north, to the Union Pacific Railroad tracks on the east, Bartlett Avenue and the Sky-



*First Southern Baptist Church of San Lorenzo*

west Public Golf Course on the south, and the San Francisco Bay and the tidelands on the west. The area, which includes San Lorenzo Village, a 1940s planned development of small homes to the west of Hesperian Boulevard, consists predominantly of single-family homes with commercial development along the major roadways. Additionally, San Lorenzo has an agglomeration of industrial businesses in the Grant Avenue Industrial Area. These are located between the San Francisco Bay and the residential area of the community.

The Eden Area also includes the Fairview area. The 1997 Fairview Area Specific Plan contains the goals, policies, and zoning regulations that apply to this area.

## **2. Eden Area History**

The original occupants of the Eden Area were the Cho-chenyo-speaking Native American tribes attracted to the creeks, lush vegetation and abundant game in the area. The primary tribes were the Ohlone or Coastanoan. They lived along the San Lorenzo Creek and near the present-day Fairmont Hospital area, where water was available from a spring. San Lorenzo Creek was a focal point for Ohlone society in the area. The creek provided access to the marshes at the edge of the San Francisco Bay, where the Ohlone collected shellfish to eat and tule reeds out of which they constructed their homes. Ohlone hunters also found deer, elk, rabbits, squirrels, and birds around the creek and in the hills.

Spanish settlers moved into the area in 1797, maintaining control until the area was turned over to Mexico at its independence in 1821. The closest mission to the Eden Area was Mission San Jose, which was established with a primary goal of converting the Ohlone people in the area to Catholicism. The establishment of the mission began the first transition of the Eden Area to agricultural use as portions of the area were made part of the mission lands and were used for cattle grazing.

With the gold rush and American annexation in the mid-nineteenth century, the area began to attract a larger population. One of the early U.S. settlers was a miner, Captain William Roberts, who soon discovered that there was much more

money to be made on the abundant game around San Lorenzo Creek for sale on the San Francisco market than from gold. He established a landing at the mouth of the creek and by 1853 was operating a regular freight and passenger schooner service between the landing and San Francisco. Within the year many other settlers moved into the area.

The County of Alameda was established in 1853 and the town of San Lorenzo was founded in 1854. It was located just north of San Lorenzo Creek at the intersection of Telegraph Road (now Hesperian Boulevard) and Main Street (now Lewelling Boulevard). Between 1817-1854 the area at the Four Corners, now the intersection of Hesperian and Lewelling, was known as Squatterville. The first business in San Lorenzo was Boyles Blacksmith Shop, located on the south side of the San Lorenzo Creek on the current Hesperian Boulevard. The building is currently in use as a pottery store. Two miles west from the old town of San Lorenzo was Robert's Landing, which was an important early location for water transportation across the Bay.

During the 1850s and 1860s, a number of farms and ranches were established from former ranchos, including the Meek and Lewelling estates. William Meek established some of the earliest commercial agriculture in Alameda County. He grew grain and raised sheep, rotating the crops to maximize yield. Meek's landholdings, together with his one-time partner Henderson Lewelling, boasted a large cherry orchard, which gave Cherryland its name.

The excellent soil, weather and minimal frost meant that crops could be grown almost year round and the entire Eden Area quickly became a major agricultural area in the East Bay. By the 1880s, the potential of the land for growing fruit trees was recognized and soon the Eden Area became a fruit producing area. Industrial and manufacturing companies also began to locate in the area, to support the agricultural uses.

Beginning in the 1870s, several railroad companies began to build rail lines through the area to begin service from Santa Cruz to the Oakland waterfront. The direct access to rail transport for the area's local produce was a huge boon to

the local economy. The San Lorenzo Railroad Station was built in 1878 and was located near the old cemetery on what is now Hesperian Boulevard. By 1898, more fruit was shipped out of the San Lorenzo Railroad Station than from any other station in the state.

The transit lines stimulated new development in the Ashland community with farmlands and orchards being subdivided into town lots of approximately one acre each. They also made the area more accessible for recreational users that were attracted by the agricultural beauty of the area.

San Lorenzo was a small resort town that boasted two fine hotels in addition to the Grove Pavilion, which was a particularly popular regional destination for day trips. It was an 8-acre natural park owned by the electric car line and was located bordering 3<sup>rd</sup> Street and Main Street which is now Lewelling Boulevard. It included a dance pavilion, picnic grounds, playing fields, a concession area and an outdoor bandstand.

The park was purchased in 1895 by the Oakland Traction Company and in 1911 was sold to M.S. Rodgers, who operated it as an amusement park until 1920. When the oak trees became infected with a fungus, Mr. Rodgers replaced them with an apricot orchard. The Pavilion was torn down in 1926 to create a site for a house for his daughter that now stands on the corner of Tracy Street and Lewelling Boulevard. The San Lorenzo School district bought the remainder of the land between the orchard and the railroad tracks. The caretaker's house for the Grove was moved next to the school property (near the current Quanset building), where it remains today. Eventually, the orchard was sold and divided to create the right-of-way for Sharon Street. Individual homes were built on the remaining land.

To serve the expanding agricultural economy of the area, several small trading centers in Hayward, San Leandro and San Lorenzo were established, as were a number of landings along the shoreline. In the 1880s and 1890s there was a great diversification of agricultural crops grown in the area, with much of the fruit packed and shipped throughout the country. The Oakland, San Leandro and

Hayward Electric Railway was completed in 1891, permitting new urban development along its length. The California Packing Corporation (CPC) Del Monte Plant No. 9 operated in San Lorenzo for many years. It was located by the cemetery near the current storage area.

During the 1890s, the Eden Area became part of the East Bay's rail transit network with construction of the Oakland, San Leandro and Hayward Electric Railway. By 1892, approximately 14 miles of track were in place along the old County Road (East 14th Street/Mission Boulevard) between Oakland and Hayward. Trolleys ran every half hour from 5 a.m. until midnight. There were side-feeder lines from the Ashland junction (near 150th Avenue and Hesperian Boulevard/East 14th Street) to Lewelling Boulevard along Telegraph Road (now Hesperian Boulevard), and along Ashland Avenue.

At the end of the 19<sup>th</sup> and beginning of the 20<sup>th</sup> centuries, numerous immigrant groups from Portugal, Germany, Denmark, Italy and Japan joined early settlers in the area and contributed their heritage and skills to shape the economic growth of the region. In the 1920s, large ranches and farms were subdivided into one- and two-acre farm sets and the landscape began to change again to accommodate new roads for automobiles and trucks. East 14th Street/Mission Boulevard (then called County Road) became the major north-south highway for the East Bay. After World War II, the area's agricultural importance began to decline when extensive farmlands were displaced by multi-unit development, single-family subdivisions, and more recently by areas of commercial and industrial development.

Interstates 880 and 580, which run north-south and were completed in the 1950s and 1960s, and Interstate 238, which runs east-west and became an Interstate in 1983, effectively divided the Ashland, Cherryland and San Lorenzo communities, in an effort to provide improved automobile access to the greater Bay Region. In the 1970s, the Bay Area Rapid Transit System (BART) was built as an elevated line over the then Western Pacific Railroad tracks. The Bayfair station is located at the north edge of Ashland, providing an additional level of transit service to



the overall area, and the Hayward BART station is located just south of the Eden Area in downtown Hayward.

### 3. Eden Area Today

Today, the Eden Area is an agglomeration of distinct neighborhoods with interconnected histories. The five sub-areas described above vary widely in their populations and physical appearance. The Eden Area is relatively urbanized and substantially built out, though there are opportunities for infill development and redevelopment.

#### a. Demographics

In 2000, the Eden Area had 60,076 people, 20,515 households and 25,612 employed residents. Like most of Alameda County, the Eden Area is culturally diverse. As shown in Table 1-1, of the 60,076 people who lived in the community in 2000, 38.4 percent were White and 32.0 percent were Hispanic or Latino. There are also smaller, but significant, populations of Black or African Americans (10.7 percent) and Asian Pacific Islanders (14.0 percent).

The Eden Area is largely composed of families, with 70 percent of households classified by the 2000 Census as “family households.” This is slightly higher than Alameda County as a whole, which has 65 percent, and California, which has 69 percent. Of these households, a smaller proportion are homeowners than in Alameda County or California. About 50 percent of Eden Area households own their own home, while 55 percent of Alameda County households and 57 percent of California households are homeowners.

Between 1990 and 2000, the Eden Area population grew at a rate of 1.8 percent per year. This growth rate was slightly larger than the average growth rates for Alameda County and the State of California, which were 1.2 and 1.3 percent per year, respectively. Despite this relatively rapid rate of household growth, housing development has not kept pace with demand, leading to larger household sizes, low vacancy rates for both rental and ownership housing, and rising housing costs. Given regional population growth forecasts and development patterns, these trends are likely to continue into the future.

TABLE I-1 **POPULATION BY RACE AND ETHNICITY IN THE EDEN AREA, 2000**

<b>Race/Ethnicity</b>	<b>Number</b>	<b>Percent</b>
American Indian and Alaska Native	338	0.6%
Asian, Hawaiian and Pacific Islander	8,415	14.0%
Black or African American	6,445	10.7%
Hispanic or Latino	19,264	32.1%
White	23,059	38.4%
Some other race	132	0.2%
Two or more races	2,423	4.0%

The population in the Eden Area is also multi-generational. There are a greater percentage of senior citizens in the Eden Area than in either Alameda County or California. This older population is complemented, however, by a large number of children, 26.7 percent of the total Eden Area population.

This is greater than the percentage of children in Alameda County (24.6 percent) but smaller than the percentage in California as a whole (27.3 percent). This large number of children contributes to an overall lower average median age compared to the County as a whole. However, the median age ranges from a high of 37.7 in San Lorenzo to a low of 29.7 in Hayward Acres, as shown in Table 1-2. The range of ages presents opportunities for families and continuity between age groups but requires that the County provide a range of services to address the disparate needs of this mixed population.

The large number of children contribute to a household size of 2.93, well above the County average of 2.71 persons per household. The large household size contributes to making the Ashland and Cherryland portions of the Eden Area among the densest in northern California.

TABLE 1-2 **MEDIAN AGE AND INCOME BY NEIGHBORHOOD**

Eden Area Neighborhoods	Median Age	Median Income
San Lorenzo	37.7	\$56,170
Hayward Acres	29.7	\$45,398
Cherryland	31.6	\$42,880
Ashland	30.9	\$40,811
Alameda County	34.5	\$55,946

The neighborhoods within the Eden Area vary substantially in terms of median income, as shown in Table 1-2. Only San Lorenzo exceeds the County median income, while Ashland and Cherryland are substantially lower.

Educational attainment information is available for the Ashland, Cherryland and San Lorenzo communities within the Eden Area, as shown in Table 1-3. They vary somewhat in levels of college education, but all three are substantially below the County-wide figure of 38.5 percent with college degrees.

b. Local Economic Base

In the beginning of the 20<sup>th</sup> century, the greater Eden Area contained many large light industrial and distribution uses, including a prominent local canning industry. The last of these canneries closed in the late 1970s and the Bay Area's regional economy has shifted steadily towards services and high technology. These changes are reflected in the Eden Area's local economic base. The area's strongest employment sector is sales and office occupations, with more than 31 percent of all local jobs as of 2000, followed by management and professional occupations with 24 percent of jobs, as shown in Table 1-4. The predominant types of employment for Eden Area residents are similar to those of Alameda County as a whole because the top two occupations are the same. However, Alameda County's top profession is management and professional, followed by sales and office. Management and professional positions are more likely to require a college degree, which is more common at the Countywide level than in the Eden Area.

TABLE I-3 **EDUCATIONAL ATTAINMENT**

	Ashland		Cherryland		San Lorenzo	
	Number	Percent	Number	Percent	Number	Percent
Less Than 9th Grade	1,557	10.5%	1,591	15.7%	1,082	6.6%
9th to 12th Grade, No Diploma	2,524	17.0%	1,793	17.7%	2,070	12.6%
High School Graduate*	4,242	28.5%	3,141	30.9%	5,428	33.0%
Some College, No Degree	3,793	25.5%	2,127	21.0%	4,468	27.1%
Associate Degree	832	5.6%	659	6.5%	1,110	6.7%
Bachelor's Degree	1,425	9.6%	654	6.4%	1,704	10.3%
Graduate/ Professional Degree	516	3.5%	186	1.8%	606	3.7%
<b>Total</b>	<b>14,889</b>	<b>100%</b>	<b>10,151</b>	<b>100%</b>	<b>16,468</b>	<b>100%</b>
Population with College Degrees	2,773	18.6%	1,499	14.8%	3,420	20.8%

Source: US Census 2000, and analysis provided by Bay Area Economics 2003.

Overall, the greater Eden Area grew more slowly than the County in terms of employment between 1990 and 2000. As displayed in Table 1-5, the Association of Bay Area Governments (ABAG) estimates that the Eden Area's local employment base grew by 3.8 percent between 1990 and 2000, compared to 16.7 percent growth in the County overall.

### *C. Purpose of the General Plan*

The Eden Area General Plan is the County of Alameda's fundamental land use and development policy document for the Eden Area. It is a portion of the Alameda County General Plan, which consists of documents for the various planning areas in unincorporated Alameda County. This plan represents the basic policy direction of the Alameda County Board of Supervisors on community

TABLE I-4 OCCUPATION OF EMPLOYED RESIDENTS IN THE EDEN AREA

Occupation	Number	Percent
Management, professional, and related occupations	6,392	24.0%
Service occupations	3,837	14.4%
Sales and office occupations	8,349	31.3%
Farming, fishing, and forestry occupations	41	0.2%
Construction, extraction, and maintenance occupations	3,168	11.9%
Production, transportation, and material moving occupations	4,859	18.2%
<b>Total</b>	<b>26,646</b>	<b>100%</b>

Note: The figures above include the communities of Ashland, Cherryland and San Lorenzo, rather than the full Eden Area due to data availability.

Source: US Census 2000, and analysis provided by Bay Area Economics 2003.

values, ideals and aspirations to govern the Eden Area through 2025. It addresses all aspects of development including land use, transportation, public facilities and services, and open spaces, among other topics. Though residential development is touched on in this General Plan, detailed housing policies are provided in a separate Housing Element.

The Housing Element of the General Plan has been a separate process from the Eden Area General Plan Update. The County adopted the Alameda County Housing Element in October 2003, and committed to an implementation program that would amend portions of the General Plan and modify aspects of the Zoning Ordinance and Specific Plans to conform to the goals and policies of the Housing Element. To ensure internal consistency between elements of the General Plan and the Zoning Ordinance, these implementation measures are incorporated into the policies found in this Plan. As of 2009, an update to the Alameda County Housing Element was underway, with adoption expected in November 2009.

TABLE I-5 **LOCAL ECONOMIC BASE**

	Eden Area			Alameda County		
	Persons (1990)	Persons (2000)	Percent Change (1990 - 2000)	Persons (1990)	Persons (2000)	Percent Change (1990 2000)
Employed Residents	27,033	31,627	17.0%	645,981	697,882	8.0%
Agricultural and Mining	180	130	-27.8%	3,900	3,460	-11.3%
Manufacturing and Wholesale	1,220	1,430	17.2%	131,820	163,290	23.9%
Retail Jobs	3,440	3,390	-1.5%	111,570	120,590	8.1%
Service Jobs	4,680	4,960	6.0%	215,350	268,770	24.8%
Other Jobs	1,320	1,340	1.5%	181,460	195,570	7.8%
Total Jobs	10,840	11,250	3.8%	644,100	751,680	16.7%
Ratio of Employed Residents to Total Jobs	2.49	2.81	-	1.00	0.93	-

Note: As shown above, the Eden Area includes the communities of Ashland, San Lorenzo, and Cherryland/Fairview; therefore, totals differ from Census data.

Source: ABAG *Projections 2002*, and analysis provided by Bay Area Economics 2003.

In addition to the Alameda County Housing Element, the Eden Area is also subject to a number of additional county-wide General Plan elements, including:

- ◆ Scenic Route Element (adopted 1966)
- ◆ Seismic Safety and Safety Element (adopted 1976, amended 1982)
- ◆ Noise Element (adopted 1976)
- ◆ Open Space Element (adopted 1973, amended 1994)

- ◆ Conservation Element (adopted 1976, amended 1994)
- ◆ Parks and Recreation Element (adopted 1956, amended 1968)

These elements cover issues that go beyond the Eden Area and thus require a coordinated county-wide approach. On some of these topics, namely seismic safety, noise and parks and recreation, there are issues specific to the Eden Area that need to be addressed more fully than is possible in the broader County element. Thus, elements have been included in the Eden Area General Plan to deal with Eden Area-specific issues.

The Eden Area has limited resources for scenic routes, open space and conservation. Therefore, the county-wide elements are sufficient to cover these topics in the Eden Area. Finally, the County is currently revising and consolidating the Open Space, Conservation, and Parks and Recreation elements into one coordinated document that will be called the Regional Open Space and Agriculture Element (ROSA). The goals, policies and actions of the Eden Area General Plan will be consistent with ROSA as it is with all of the other county-wide elements.

*California Government Code* Section 65300 requires that the General Plan be comprehensive, internally consistent and plan for the long term. Although required to address the issues specified in State law, the General Plan may be organized in a way that best suits the County. The plan should be clearly written, available to all those concerned with the community's development and easy to administer.

This Eden Area General Plan meets these requirements. The Plan articulates a vision for the Eden Area's long-term physical form and development. It also brings a deliberate overall direction to the day-to-day decisions of the Board of Supervisors, its commissions and County staff in regards to the Eden Area. In particular, the General Plan serves six related purposes:

1. **Communication.** The General Plan conveys the vision for the future of the Eden Area to current and future residents and provides policy direction and guidance to the Board of Supervisors for achieving that vision.

2. **Policy Determination.** The document defines a set of policies that enables the Board of Supervisors to govern the future physical development of the community and determine a general physical design showing how the policies will be implemented.
3. **Project Evaluation.** The General Plan provides a mutually agreed upon framework against which the Board of Supervisors and other bodies can review, compare and evaluate specific projects.
4. **Conveyance of Advice.** The General Plan provides the Planning Commission with a coherent, unified structure for advising the Board of Supervisors on development issues.
5. **Education.** The document, and the process of creating and revising it, provides a forum for residents, County staff and the Board of Supervisors to educate themselves and others on the problems and opportunities of the Eden Area.
6. **Action Plan.** The General Plan includes specific actions that the County will take in order to meet its planning goals. These actions constitute a work program for the Planning Commission and County staff over the life of the General Plan. The County acknowledges that many of the proposed actions will require as yet unidentified funding. This General Plan assumes that County staff will identify and pursue all possible funding sources to implement the work program in this General Plan.

In order to be used in the ways described above, the General Plan does the following:

- ◆ Defines a realistic vision of what the Eden Area intends to be in the long term.
- ◆ Expresses the policy direction of the County in regard to the physical, social, economic, cultural and environmental character of the Eden Area.
- ◆ Serves as a comprehensive guide for making decisions about land use, community character, economic development, circulation, open space, the environment, and public health and safety.

- ◆ Contains a general level of information to allow for flexibility of future conditions and ideas.
- ◆ Charts the course of coordinated development and conservation that will preserve the character and heritage of the Eden Area.
- ◆ Serves as the Eden Area’s “constitution” for land use and community development. That is to say, it is the legal foundation for all County zoning, subdivision and public facilities ordinances, decisions and projects—all of which must be consistent with the General Plan under State law.
- ◆ Is in a clear and easy to understand form that encourages public understanding.

#### *D. The General Plan Update Process*

The Eden Area General Plan was prepared over a period of several years beginning in October of 2002 by County staff and a consultant team, with extensive public input. The process included four major tasks, each with a series of public workshops. The first task explored the vision, goals and needs of community members as well as the existing opportunities and constraints for development. The comments from the public formed the basis for the vision statement in this General Plan as well as a list of issues to be addressed through policy and action statements. Concurrent with this task, the consultant team prepared an extensive existing conditions analysis that explored a range of physical and social conditions in the Eden Area. The Eden Area General Plan Existing Conditions Report, an extensive report about the area’s built environment, transportation network and economic conditions, resulted from this work. Public workshops on existing conditions were held in March and May of 2003.

As a result of the existing conditions report and the goals and needs of the community, a variety of land use and policy alternatives for the Eden Area were developed. These were presented and discussed at public workshops in July and September 2003. The land use alternatives identified key locations with the greatest potential to attract new business and enhance the overall livability of the

Eden Area. Community members had a number of opportunities to provide feedback on the future for each area and to guide the consultant team in the refinement of alternative development strategies. The final alternative that was developed provides the basis for the Land Use Element in the Eden Area General Plan.

The policy alternatives explored a range of issues of concern to the community including pedestrian safety, traffic congestion, and the need for new public services and facilities, such as parks and schools. Key issues that were identified throughout the process are addressed in the background information, goals, policies and actions of the six elements of the General Plan.

The fourth phase of the update process was the development and review of the General Plan and its adoption by the Alameda County Board of Supervisors. Additional public workshops were held on two key areas, the Grant Avenue Area and the Fairmont Campus. The consultant team prepared a separate existing conditions report and specific key issues for the Grant Avenue Area. Additionally, the consultant team worked with the Alameda County General Services Agency (GSA) to coordinate the General Plan with the *Fairmont Area Master Plan* for the Fairmont Campus. The results of these processes are included in this General Plan.

Changes to the boundaries of the Eden Area necessitated an additional update of the Draft General Plan in 2009. Hillcrest Knolls, Fairmont Campus and El Portal Ridge were removed from the Eden Area and added to the Castro Valley planning area, and the Mt. Eden Area was annexed to the City of Hayward.

#### *E. General Plan Contents*

Though all of the elements of the Eden Area General Plan are interconnected and consistent with one another, the contents of the plan are divided into chapters or elements.

## 1. General Plan Elements

The Eden Area General Plan is guided by the vision statement in Chapter 2 of this document and by the land use and urban design framework presented in the Land Use Element. The bulk of the General Plan is comprised of seven separate elements that set goals, policies and actions for subjects required by State law or determined as important by the County. The elements in the Eden Area General Plan cover four of the seven topics required by State law and three optional elements: on parks and recreation, public facilities and services and greenhouse gas emissions reduction efforts. The Housing Element, also required by State law, is not included in this General Plan because a county-wide Housing Element was adopted by the County Board of Supervisors in October of 2003 and conditionally certified by the State Department of Housing and Community Development in January of 2004. As of 2009, an update to the Alameda County Housing Element was underway, with adoption anticipated in late 2009. The Open Space and Conservation Elements are not included in this General Plan because the County is currently revising and consolidating the ROSA, which will combine the Open Space, Conservation, and Parks and Recreation elements into one coordinated document. The Eden Area General Plan goals, policies and actions will be consistent with ROSA, as they are with all of the other county-wide elements.

The elements that form the Eden Area General Plan are briefly described below:

1. **Introduction.** This introduction provides a vision statement to guide the policies in the General Plan, describes the Eden Area and supplies an overview of the purpose and process for the update of the plan.
2. **Vision for Eden Area 2025.** This section presents the vision statement developed by residents of the Eden Area and identifies the top priorities to be implemented through the General Plan.
3. **Land Use Element.** The required Land Use Element designates all lands within the Eden Area for a specific use such as residential, commercial, open space, recreation or public uses. The Land Use Element also provides an overall urban design framework, land use designations and land use policies for the Eden Area.

4. **Circulation Element.** This required element specifies the general location and extent of existing major streets, transit facilities, and the bicycle and pedestrian network. As required by law, all facilities in the Circulation Element are correlated with the land uses foreseen in the Land Use Element.
5. **Parks and Recreation Element.** The Parks and Recreation Element is an optional element that is included in this General Plan because the lack of park space is a major issue in the community. The Element includes goals, policies and actions to maintain and improve existing parks and presents ideas for the location of new park and recreation facilities.
6. **Public Facilities and Services Element.** The Public Facilities and Services includes goals, policies and actions to maintain adequate levels of public services including fire, police, water, solid waste, schools and libraries.
7. **Noise Element.** This required element addresses noise issues in the community and analyzes and quantifies current and projected noise levels from a variety of sources, such as traffic, industry, rail and the airport.
8. **Public Safety Element.** The Safety Element is required by State law and contains policies to protect the community from risks associated with the effects of flooding, seismic and other geologic hazards, and wildland fires.
9. **Greenhouse Gas Action Element.** This element, which is newly added to the Revised Final Draft of the General Plan, summarizes the County's current efforts to reduce greenhouse gas emissions and identifies policies in the General Plan that address urban form, growth patterns and alternative transportation as they relate to climate change. This element also includes goals and policies designed to offset greenhouse gas emissions as growth occurs in the Eden Area.

## 2. Organization of the Elements

Each element of this General Plan contains background information and goals, policies and actions. Some elements also have additional sections that are specific to them. For example, the Land Use Element contains sections on urban design and land use designations. The Circulation Element contains information on roadway classifications in the Eden Area.

The background information section of each element describes current conditions in the Eden Area relative to the subject of the element. The goals, policies and actions provide guidance to the County on how to accommodate growth and manage its resources over the next 20 years. The goals, policies and actions in each element are derived from a number of sources including other County planning documents and public input gathered at community workshops. Each goal, policy and action in the Eden Area General Plan was selected or written to address the key issues identified in the General Plan update process outlined above. Each is described as follows:

- ◆ A **goal** is a description of the general desired result that the County seeks to create through the implementation of its General Plan.
- ◆ A **policy** is a specific statement that guides decision-making in working to achieve a goal. Policies represent statements of County regulation and require no further implementation. The General Plan's policies set the standards that will be used by County staff, the Planning Commission, the Board of Zoning Adjustments and the Board of Supervisors in their review of land development projects and in decision-making about County actions in the Eden Area.
- ◆ An **action** is a program, implementation measure, procedure or technique intended to help achieve a specified goal.

Figure 1-3 shows the relationship between each of the components described above. As shown in the figure, policies and actions are at the same level; both policies and actions are intended to implement goals. In most cases, goals have both implementing policies and actions. However, it is also possible for a goal to be implemented exclusively through either policies or actions.

FIGURE I-3 GENERAL PLAN COMPONENTS

---



### 3. Policy Language

The policies in this General Plan contain language that reflects the following principles:

- ◆ “**Shall**” means that conformance is mandatory.
- ◆ “**Should**” means that conformance will be strongly encouraged by the County and that the particular policy or action is intended to be a recommendation about how to meet the goals and objectives of the General Plan.
- ◆ “**May**” indicates that a policy is permissive, and that the County has latitude to allow the subject action to occur.

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
INTRODUCTION

## 2 VISION FOR EDEN AREA 2025

This General Plan is guided by the vision that Eden Area residents expressed in the General Plan update process for how they would like to see the Eden Area evolve. The policy framework presented in this document is designed to steer growth toward the future anticipated by Eden Area residents in their vision statement. (Please note that Vision for Eden Area 2025 is newly added to this version of the General Plan to include an expanded vision section. In previous versions of this document, the vision statement was included in the Introduction.)

### A. *Vision Statement*

Through the year 2025, the Eden Area of Alameda County should emerge as one of the most livable communities in the greater San Francisco Bay Area and become a great place to live, work and do business. Drawing on its rich history, the Eden Area will provide a bright future of opportunities for growth and advancement. The Eden Area will be an attractive and vibrant place, enhanced by the creation of lively districts where residents can live, shop, walk, eat, gather and play. The Eden Area will provide renewed residential areas, affordable neighborhoods with housing choices that fit the needs of all residents, and investment in the economic development of the community to revitalize selected underutilized transportation corridors and create new districts of concentrated economic activity. Eden Area residents will enjoy safe streets with a comprehensive network of bicycle lanes and enhance bus transportation along corridors that is convenient and frequent. Expanded parks and recreation opportunities will serve the needs of all residents.

Growth should be managed to bring in needed benefits while preserving the important qualities of the Eden Area. New development should be pedestrian- and transit-oriented; properties and streets should be repaired and enhanced. New projects should pay their fair share of the costs to create and maintain the quality of life desired for the Eden Area. All stakeholders will continue to have the opportunity to participate in the land use decision-making process to balance community needs and values with the rights of individuals. Additionally, the Eden Area will provide expanded employment opportunities for its residents.



*View of the Eden Area*



*Residential street in the Eden Area*

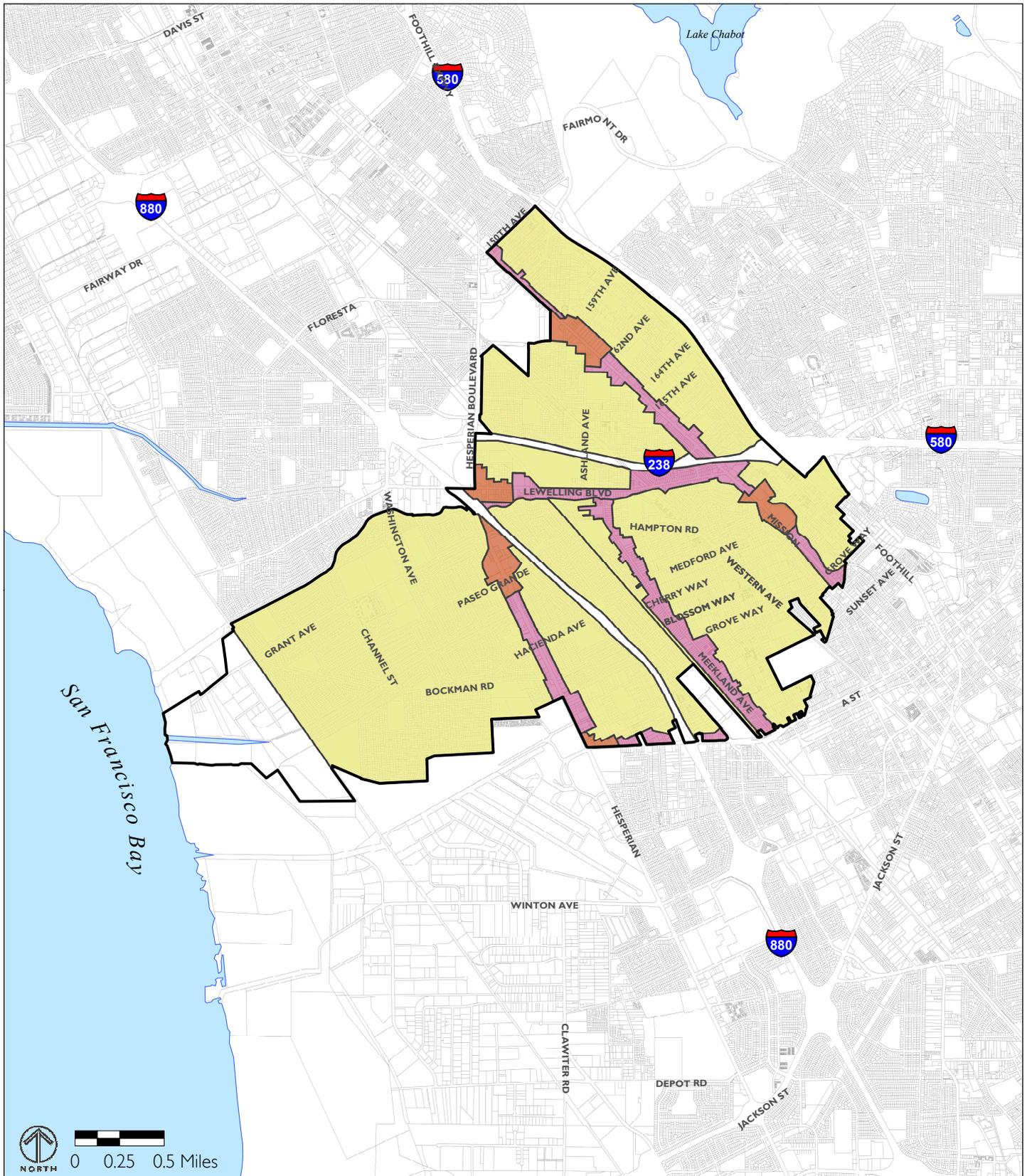


*Residential street in Cherryland*

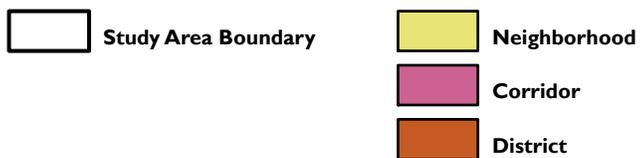
The Eden Area is a part of a greater regional community, and will have to work with its neighbors to seek solutions to the wider issues that cross its borders. Eden Area residents are proud of their community and welcome the opportunity to be in control of their destiny. The vision for the Eden Area is to ensure that residents will live in a dynamic, aesthetically pleasing and livable community for many generations to come.

Overall, the Eden Area will become a balanced community of residential neighborhoods, revitalized corridors and thriving centers, as described below and shown in Figure 2-1.

- ◆ **Neighborhood Preservation.** Eden Area residents value their neighborhoods, and this General Plan seeks to preserve and enhance them. Any new development within the neighborhoods will be regulated so that it does not erode neighborhood quality and character. Moreover, the General Plan includes policies and actions to increase neighborhood livability.
- ◆ **Commercial Revitalization.** Commercial corridors have the potential to be thriving centers for economic development, but are currently an underutilized resource. This General Plan seeks to transform these corridors from features that divide the community into areas that bring people together, featuring shops, housing and offices. Corridors are a key to revitalizing the entire Eden Area and enhancing future economic development.
- ◆ **Activity Centers.** The Eden Area's future growth should result in the development of districts and central activity centers where people can live, work, shop and gather. These districts will provide a sense of community identity and spur economic development. The San Lorenzo Village Center Specific Plan provides an example of this type of district development. This General Plan identifies four other locations for the development of similar new activity centers: East 14<sup>th</sup> Street at Ashland Avenue, Mission Boulevard at Mattox Road, the Four Corners area at the intersection of Hesperian Boulevard and Lewelling Boulevard, and the intersection of Hesperian Boulevard and 'A' Street.



Source: Alameda County Community Development Agency



**FIGURE 2-1**

**NEIGHBORHOODS, CORRIDORS AND DISTRICTS**

*B. Top Ten Priorities for the Eden Area*

To achieve the vision for the Eden Area in 2025, the following ten policies and actions from the General Plan should be the top priorities during the lifetime of the Plan:

1. Amend the Zoning Ordinance Map for overall consistency with this General Plan. (Land Use Element, Goal LU-1, Action A1)
2. Develop design guidelines to maintain the desirable qualities and character of existing neighborhoods. (Land Use Element, Goal LU-4, Action A1)
3. Implement a planning process for existing streetscape plans for East 14<sup>th</sup> Street/Mission Boulevard, Lewelling Boulevard and Hesperian Boulevard. (Land Use Element, Goal LU-7, Action A5)
4. Implement new development in the following areas to create vibrant districts:
  - ◆ San Lorenzo Village Center
  - ◆ East 14<sup>th</sup> Street at Ashland Avenue
  - ◆ Mission Boulevard at Mattox Road
  - ◆ The Four Corners Area at the intersection of Hesperian Boulevard and Lewelling Boulevard
  - ◆ The intersection of Hesperian Boulevard and 'A' Street (Land Use Element, Goal LU-8, Policy P2)
5. Initiate a program of street tree planting for all residential public streets. This program should include an assessment of where street trees are most needed. (Land Use Element, Goal LU-12, Action A3)
6. Encourage new research and development and office uses in the Grant Avenue Industrial Area of San Lorenzo. (Land Use Element, Goal LU-15, Policy P2)



*Commercial street in the Eden Area*

7. Actively assist potential developers and the Redevelopment Agency to assemble parcels in districts to allow for larger development projects. (Land Use Element, Goal LU-8, Action A2)
8. Develop incentive programs for property owners who voluntarily terminate general advertising leases and agree to phase out existing billboards. (Land Use Element, Goal LU-12, Action A1)
9. Review and revise capital improvement programs to prioritize multi-modal projects over roadway improvements. (Circulation Element, Goal CIR-1, Action A5)
10. Adopt and implement the *Pedestrian Master Plan*, and update the *Bicycle Master Plan for the Western Unincorporated Areas* upon adoption of the Eden Area General Plan. (Circulation Element, Goal CIR-6, Action A2 and Goal CIR-7, Action A1)



*Residential street in Ashland*

*This page intentionally blank*

### 3 LAND USE ELEMENT

The purpose of the Land Use Element is to shape the future physical development of the Eden Area and to preserve, protect and enhance the current livability and quality of life for area residents. The Land Use Element is the central element of the General Plan. The distribution, intensity and pattern of land uses provide the most vivid illustration of how the vision for the Eden Area will be realized. As such, the background, goals, policies, actions and land use designation map included in this Element provide the basis for many of the policies presented in the other Elements in this General Plan.

California Government Code Section 65302(a) and Public Resources Code Section 2762(a) require that the Land Use Element of the General Plan address the following issues:

- ◆ The distribution, location and extent of the uses of land for housing, business, industry, open space, natural resources, recreation and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities and other categories of public and private uses of land.
- ◆ Standards of population density and building intensity for land use designations.

This Element is divided into five sections:

- ◆ **Background Information** provides information on existing land uses, economic development, visual quality and historic and cultural resources in the Eden Area.
- ◆ **Urban Design and Character** explains the basic urban design framework and principles that should be used in the future development of the Eden Area.
- ◆ **Land Use Designations** describes the characteristics and intensity of each land use designation and includes the Land Use Designation Map, which shows the application of these designations in the Eden Area.
- ◆ **Goals, Policies and Actions** provides guidance to the County regarding land use decisions.

- ◆ **Area Specific Guidance** provides policy guidance for specific areas that have unique characteristics and require more detailed policies than are provided in the Goals, Policies and Actions section.

### *A. Background Information*



*Apartment complex in the Eden Area*

This section provides a snapshot of key issues in the Eden Area relating to existing land uses, economic development, visual quality, and cultural and historic resources. This background information provides the context for the rest of the Element.

#### **1. Existing Land Uses**

An existing land use description does not carry any regulatory significance. Rather, it describes the way a given parcel is currently being used. The existing land uses in the Eden Area are grouped into the following categories.

- ◆ **Single-Family Residential.** This is the predominant land use in the Eden Area. It refers to parcels that contain a single residence and related structures, such as secondary units, garages or sheds. Some single-family parcels may also contain orchards and/or structures related to raising animals. Single-family homes in the Eden Area were developed at several distinct time periods, each with their own character. They include bungalows developed in the years following World War II, ranch style and split-level homes built in the 1960s and 1970s, and multi-story homes built in the 1980s and 1990s.
- ◆ **Multi-Family Residential.** This existing land use category refers to parcels that contain more than one housing unit and includes duplexes, triplexes, four-plexes, townhouses and multi-family buildings. Multi-family homes are found throughout the Eden Area, although they are most common in Ashland, Cherryland and Hayward Acres. Many of the multi-family buildings were constructed in the 1960s and 1970s on deep, narrow lots that formerly housed agricultural operations. The buildings are often separated from the street by landscaping, fencing or parking lots.

- ◆ **Mobile Homes.** This category indicates a mobile home park, several of which are located throughout the Eden Area, including along Meekland Avenue in Cherryland, 162<sup>nd</sup> Avenue in Ashland and Hesperian Boulevard in San Lorenzo.
- ◆ **Commercial.** Commercial land uses include parcels that contain a number of business types including retail, office, and medical facilities. Commercial development is predominantly located along arterial roadways such as East 14th Street/Mission Boulevard, Hesperian Boulevard, Foothill Boulevard and Lewelling Boulevard, and at key intersections of collector streets. Commercial development in the Eden Area consists of a mixture of strip and stand-alone commercial buildings, often set back from the street and having limited relationship to one another or adjacent land uses.
- ◆ **Industrial.** Industrial land use parcels are used for production and manufacturing and accommodate buildings such as warehouses, self-storage facilities and production-oriented small businesses. Industrial parcels are located throughout the Eden Area with concentrations at the western end of Grant Avenue, along Depot Road, and at the southern end of Meekland Avenue.
- ◆ **Mixed Use.** Mixed use refers to parcels that contain a combination of residential and commercial uses. A few mixed use parcels are located in the Eden Area, primarily along major roadways such as Mission Boulevard and Meekland Avenue.
- ◆ **Park.** This land use category includes public recreational facilities that contain active or passive recreational uses, such as ball fields, lawn areas, play areas, basketball courts and swim facilities. Parks are distributed throughout the Eden Area. They also include a 3-acre portion of the Hayward Regional Shoreline.
- ◆ **Public.** The Public land use category covers a number of uses including schools, libraries, churches, and public medical facilities. These uses are distributed throughout the Eden Area.



*Shopping center on Bockman Road*

- ◆ **Vacant.** This land use category describes parcels that are currently vacant. Some of these parcels contain vacant buildings, while others are empty lots containing no structures. Vacant land or buildings are found throughout the Eden Area, although they are most common on major roadways.

In terms of acreage, the most common land use in the entire study area is single-family housing, with 1,751 acres, followed by multi-family housing with 377 acres. Of the non-residential uses, public facilities is the most predominant use, with 491 acres, followed by commercial development with 224 acres. Figure 3-1 shows the location of existing land uses and Table 3-1 shows the total acreage for each existing land use category in the Eden Area. Please note that Figure 3-1 is descriptive of current land uses in the Eden Area, and does not reflect uses allowed under the Land Use Designation map of the Eden Area Plan, as amended in 1995. Figure 3-2 shows the proportionate distribution of existing land uses.

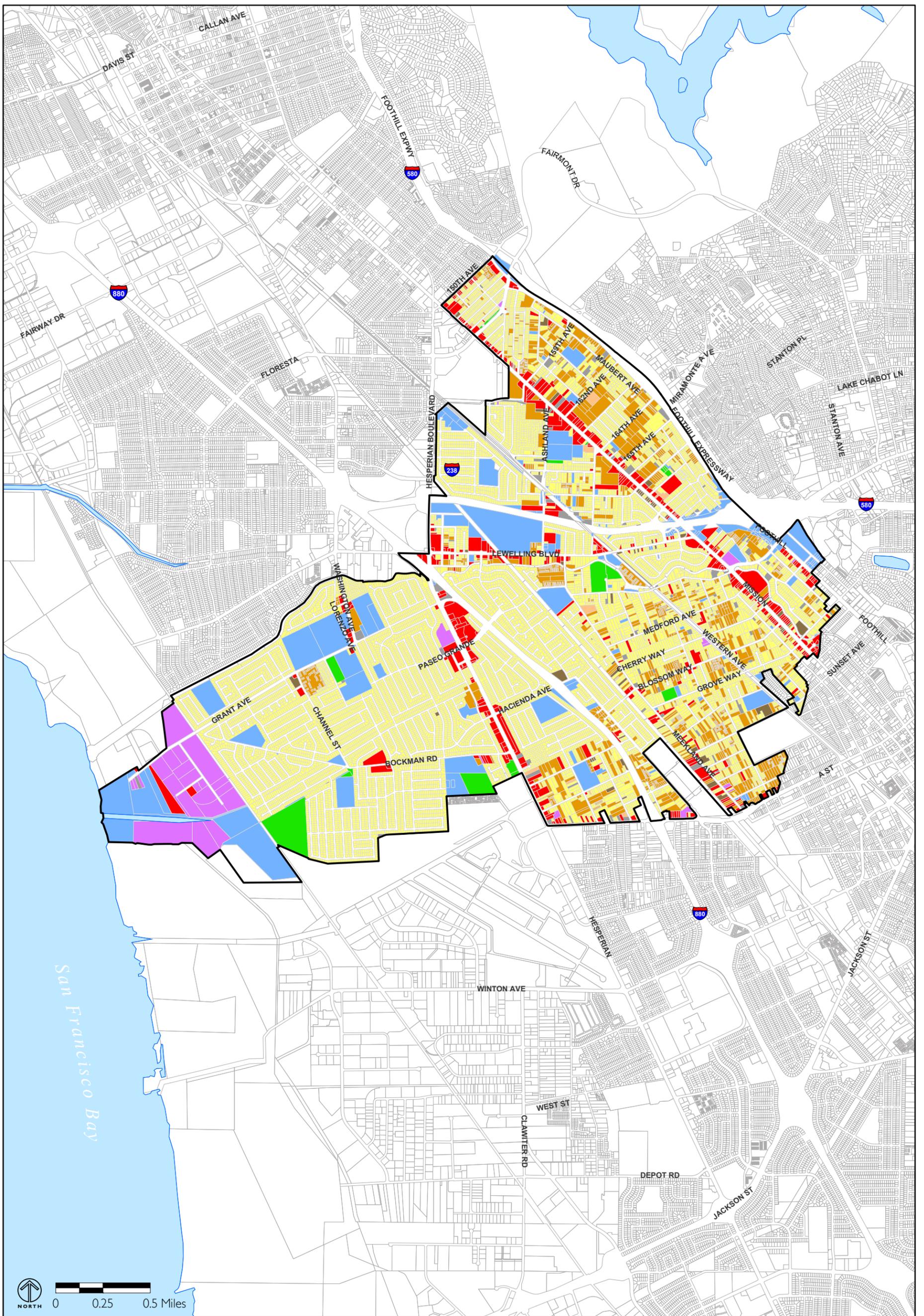
## 2. Economic Development

The Eden Area is comprised of a diverse and growing set of communities with distinct demographic profiles. However, these areas have some unifying characteristics and are economically interdependent and thus constitute one economic unit. The area has larger household sizes, a lower median age and a lower median income than the County overall. For economic development purposes, these trends reveal important strengths for new and different types of retail and service uses.



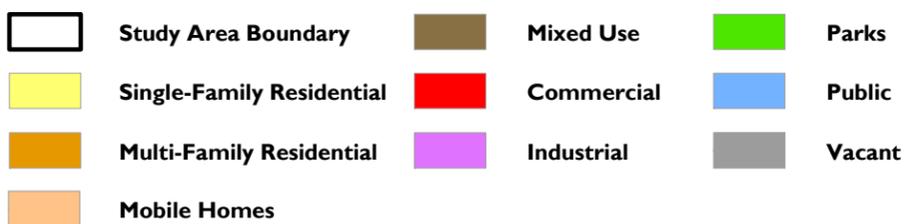
*Auto repair shop*

The local economy is strong in the manufacturing and wholesale trade sectors, services, and certain retail segments such as building materials. The industrial market in the Eden Area is quite strong with low vacancy rates and stable or rising average lease rates across all types of space. However, the lack of high-amenity office space and research and development space in the area creates an obstacle to attracting new businesses that demand state-of-the-art facilities or buildings with high-tech amenities.



Source: Alameda County Community Development Agency and Design, Community & Environment, December 2004.

FIGURE 3-1



**EXISTING LAND USE**



**COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
LAND USE ELEMENT**

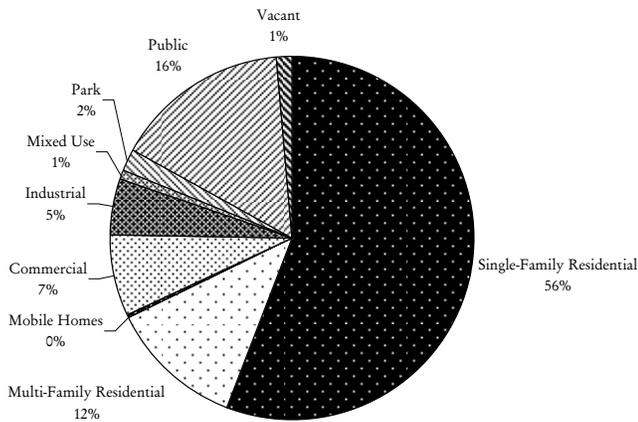
TABLE 3-1 **EXISTING LAND USE IN THE EDEN AREA**

Land Use Category	Eden Area	
	Total Acres	% of Total Acres
Single-Family Residential	1,750.7	55.8
Multi-Family Residential	376.9	12.0
Mobile Homes	8.8	0.3
Commercial	224.3	7.1
Industrial	157.5	5.0
Mixed Use	23.0	0.7
Park	65.5	2.1
Public	490.7	15.6
Vacant	39.7	1.3
<b>Total Acres<sup>a</sup></b>	<b>3,137.0</b>	<b>100.0</b>

<sup>a</sup> Total does not include acres dedicated to transportation infrastructure such as roads, railways and highways.

Source: Alameda County Community Development Agency and Design, Community & Environment. 2004.

FIGURE 3-2 **EXISTING LAND USES**



The Eden Area's economy is growing more slowly than the County overall, and is losing ground vis-à-vis neighboring communities with respect to high-technology, research and development, and other economic activities that define the broader Bay Area economy. Previous studies conducted in the Eden Area reveal a pattern of retail sales leakage in most retail categories. This means that Eden Area residents are shopping for goods and services, such as groceries and clothing, in other jurisdictions such as Hayward and San Leandro. Automotive and building material sales are strong in the Eden Area. This indicates an opportunity for additional neighborhood-serving retail uses in the grocery, restaurant and apparel categories.

### 3. Redevelopment

Redevelopment is a tool under State law that allows local governments to identify specific areas for reinvestment and revitalization. In 2000, the Redevelopment Agency of Alameda County adopted the *Eden Area Redevelopment Plan*, which designates portions of the Eden Area as redevelopment areas. The Redevelopment Plan allows the County to reinvest a portion of the property taxes from the redevelopment project area to stimulate commercial investment and revitalization in order to address substandard physical and economic conditions. Redevelopment offers a positive opportunity to capture funding to implement improvements, such as economic development, streetscape, commercial façade and neighborhood beautification projects.

While the Redevelopment Plan for the Eden redevelopment project area provides goals and objectives for future development in the area, it does not supersede the Eden Area General Plan. The regulations of the General Plan apply to all portions of the Eden Area, regardless of whether they are located within the redevelopment project area. All actions in the redevelopment plan must be consistent with the Eden Area General Plan.

The Redevelopment Plan, along with the accompanying Environmental Impact Report, documented conditions in the Eden Area. According to these reports, some of the physical challenges present in the Eden Area include building code violations, incompatible land uses, irregular parcel sizes, high



*Commercial street*

business vacancies, and an excess of bars and liquor stores. There are also visual intrusions from billboards along major roadways, a lack of urban infrastructure, such as streets with curbs and gutters and sidewalks, and deteriorated and poorly maintained properties.

To address these issues, the Redevelopment Agency released the Economic Development Strategic Plan for the Urban Unincorporated Area of Alameda County in July 2007.

The overall goals of the Economic Development Strategic Plan are to develop short- and long-term economic development strategies that are consistent with the overall vision and goals of the community. The strategies devised through this process will guide the County when recruiting, retaining and expanding businesses; provide direction for new commercial development projects; devise a “toolkit” to support local businesses; and strengthen ties with area Chambers of Commerce and local merchant groups. The Economic Development Strategic Plan will include both retail and industrial implementation plans and guidelines for the study area.

#### **4. Cultural Resources**

The Eden Area has a rich history. Many cultures have left their imprint on the area, beginning with the Native American people who were the area’s original occupants. There is the Native American village site along San Lorenzo Creek near the Southern Pacific Railroad in the old San Lorenzo Four Corners area.<sup>1,2</sup>

In the 1700s and early 1800s, Spanish and Mexican settlers moved into what is now the Eden Area to reap the benefits of the rich agricultural land from which the area gets its name. These settlers were followed by American prospectors and the waves of other immigrants from all over the world in the 1800s and 1900s.

---

<sup>1</sup> Record search by Basin Research Associates.

<sup>2</sup> Record search by Basin Research Associates

Several buildings in the Eden Area survive from the late 1880s.<sup>3</sup> These include the First Southern Baptist Church from 1875 in San Lorenzo, Queen Anne cottages from 1890 and 1895 in San Lorenzo, and Holy Ghost Hall from 1890 in Ashland. In addition, across the street from San Lorenzo High School is a bay tree which contains the ashes of William Meek's sister and niece. The tree, because of its age and role as a burial site, has been cited in "Ripley's Believe It or Not."



*Meek Mansion*

The blocks bordered by Sycamore Street, Albion Avenue, Hesperian Boulevard and Via Granada have a concentration of properties dating from the 1850s to the 1920s that comprise the historic San Lorenzo town center. Several of the schools in the Eden Area are significant examples of public architecture from the 1940s and 1950s.

The Eden Area is also historically significant because it contains many examples of houses built following Federal Housing Authority guidelines for small, inexpensive houses with modern amenities in the post-World War II (WWII) era. Many examples of these can be found in the Bohannon Company houses in San Lorenzo, along Lewelling Boulevard, and in the southeastern part of Cherryland. For example, the San Lorenzo Village was a planned model community that included a shopping center, theater, community buildings and a core community of over 5,000 homes built between 1944 and 1947. San Lorenzo Village is still remarkably intact, with few alterations, as are many of the surrounding San Lorenzo subdivisions that were built on the Village model.

A comprehensive inventory of historic and cultural resources has been completed for the Eden Area. This further informs the protection of historic resources in the Eden Area. Presently, there are a few resources listed on either the National Register of Historic Places or on the List of California Historical Landmarks. These resources are:

---

<sup>3</sup> Siegel & Strain Architects, 1998, *Preliminary Cultural Resources Survey*, April 30; Stock, Jody R. and Michael Corbett, 2000, *Unincorporated San Lorenzo Historic Building Survey, Summary Report*, November.

- ◆ **The Meek Mansion and Carriage House**, located at the northern edge of Cherryland, is listed on the National Register and as a California Historical Landmark. The surrounding Meek Estate Park is a designated California Historical Landmark.
- ◆ **The Eden Congregational Church**, located at the eastern edge of Cherryland, is listed on the National Register and as a California Historical Landmark. It was built in 1867 and is one of the oldest churches in Alameda County.
- ◆ **The Lorenzo Theater**, located on Hesperian Boulevard in San Lorenzo, is listed as a California Historical Landmark. It opened in 1947 and is of the Moderne style.

### *B. Urban Design and Character*

The Eden Area has many attributes that make it a desirable place to live. The community has a strong sense of history and pride. There are stable and attractive residential areas, unique communities, such as San Lorenzo Village, and a diverse population. The Eden Area is also centrally located in the Bay Area with access to numerous Interstate highways and regional transit systems. Unfortunately, these strengths have been diminished in many places by a lack of comprehensive planning, underinvestment in urban infrastructure and transportation projects that dissect the community. This section describes the existing urban design conditions in the Eden Area and presents a framework for creating a coherent urban pattern during the life of this General Plan.

#### **1. Existing Urban Design Conditions**

The Eden Area was built up over many years with a variety of development patterns and uses. The area began as an agricultural community and transitioned to residential uses with areas of manufacturing near the railroads during the late nineteenth and twentieth centuries. In much of the area, especially Cherryland, the legacy of this agricultural use is that residential development patterns evolved to include the reuse of the small orchards and farms



*Eden Congregational Church*

that were on long, narrow lots. Residential development began in the mid-1800s and has continued until the present day. The most explosive period of growth in the Eden Area, however, was associated with the post-WWII housing boom. In the 1940s, many operational farms, both large and small, were converted into single-family homes.

Since the 1950s, development has continued throughout the area. Farms and hillsides have been filled in with residential, public, commercial and industrial uses. This development ranges in style, quality of construction and building type and includes single-family homes, townhouses, multi-family buildings, community facilities, industrial and auto-oriented strip-commercial development along major roadways. The variety of uses, parcel sizes and eras in which development occurred resulted in a built environment without a distinct urban form or identity. In short, portions of the Eden Area lack the coherence of a well-defined urban environment.

Though important for the community, infrastructure projects such as highways and railroads, have also had a negative impact on the cohesiveness of the area. Three railroads, BART tracks and three separate highways (Interstates 238, 580 and 880) dissect the Eden Area, divide residential areas and are sources of noise, air and visual pollution. This infrastructure also detracts from the quality of the place and creates physical and psychological barriers for Eden Area residents. Additionally, San Lorenzo Creek, which runs in a fenced-off flood control channel, divides Ashland from Cherryland and San Lorenzo Village from the old San Lorenzo area.

As mentioned in Section A on Background Information, some portions of the Eden Area are defined as blighted in the Redevelopment Plan; others experience substandard conditions. These conditions are largely associated with economic development challenges. However, these same physical and economic conditions have implications for the urban design and overall livability of the Eden Area as well.

## 2. Urban Design Framework

The urban design framework presented here is designed to shape future growth in the community as it changes over time and to begin to tie together the disparate pieces of the community into a cohesive whole. This framework is based on the precepts of smart growth and livability and is intended to create a livable, attractive, vibrant community in the Eden Area. Change will take place over a long period of time as new development is constructed and older buildings are renovated or demolished.

Four distinct types of areas were identified in the Eden Area: Neighborhoods, Districts, Corridors and Special Precincts. Each parcel in the Eden Area falls into one of these four categories and there is no overlap among the areas. This framework provides the rationale and primary structure for the goals, policies and actions in this Element, though it is supplemented by additional subjects such as economic development and cultural resources. The urban design framework, which is illustrated in Figure 3-3, is intended to augment the information provided by the Land Use Designation Map, which is described in Section C of this Element and illustrated in Figure 3-4a and Figure 3-4b, by providing a broad overview of the Eden Area's physical form.

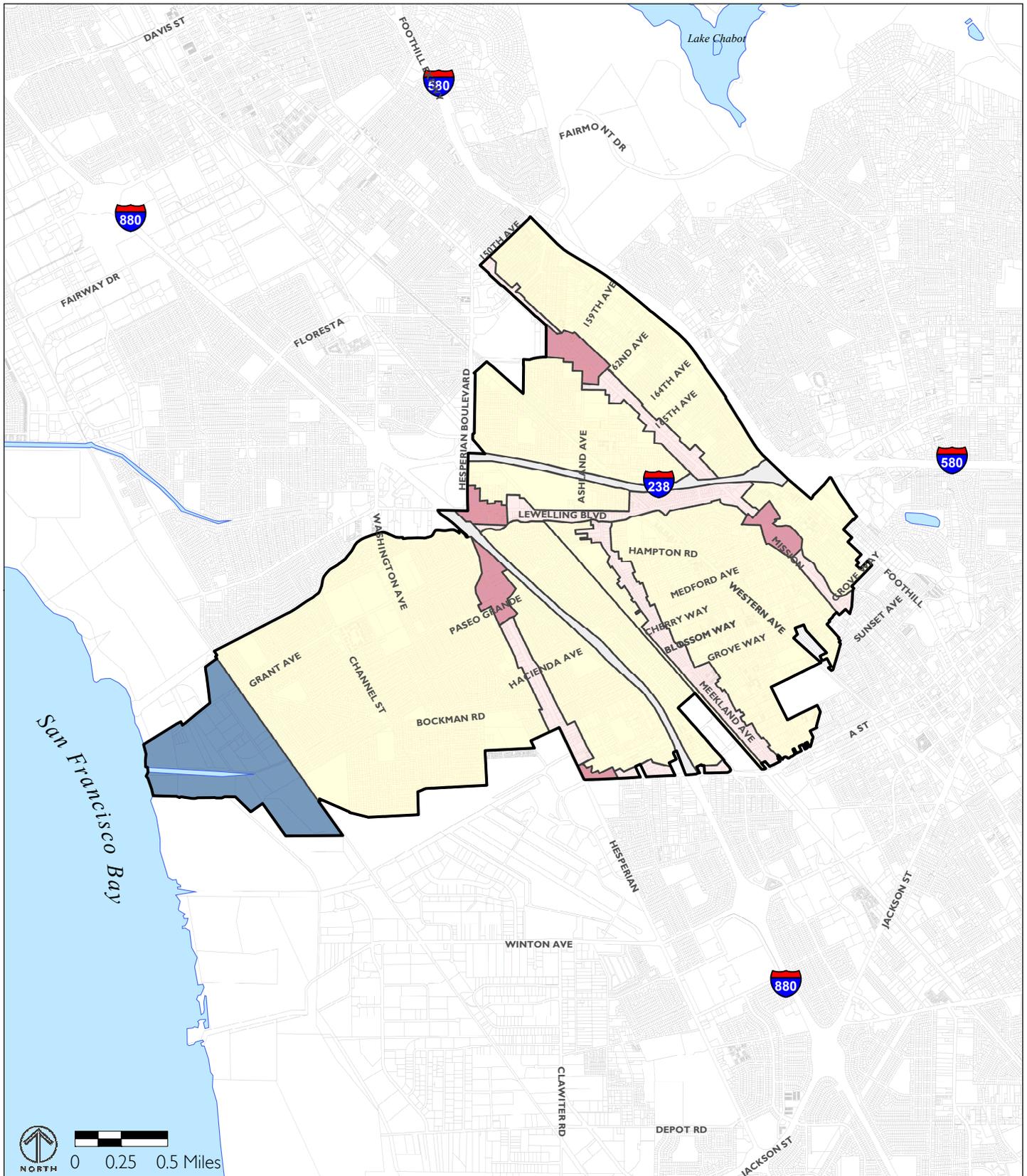
### a. Neighborhoods

Neighborhoods are relatively large residential areas that have some common character. They are recognized by people who live in them as having a distinct identity that results from a unique history, common physical characteristics (e.g., a similar architectural style), a common meeting place (e.g., such as a park), school or shopping district or more intangible characteristics (e.g., a psychological sense of cohesion). Neighborhoods are often bounded by physical characteristics, such as roadways, railroads or creeks. However, it is also common for Neighborhoods to have overlapping or "fuzzy" boundaries.

The Neighborhoods in the Eden Area range in size and character due to the mixed history of the area. A large percentage of the residential areas was not developed comprehensively and therefore lacks a clearly defined structure. In general, Neighborhoods are contained within the Eden Area's communities



*Residential neighborhood*



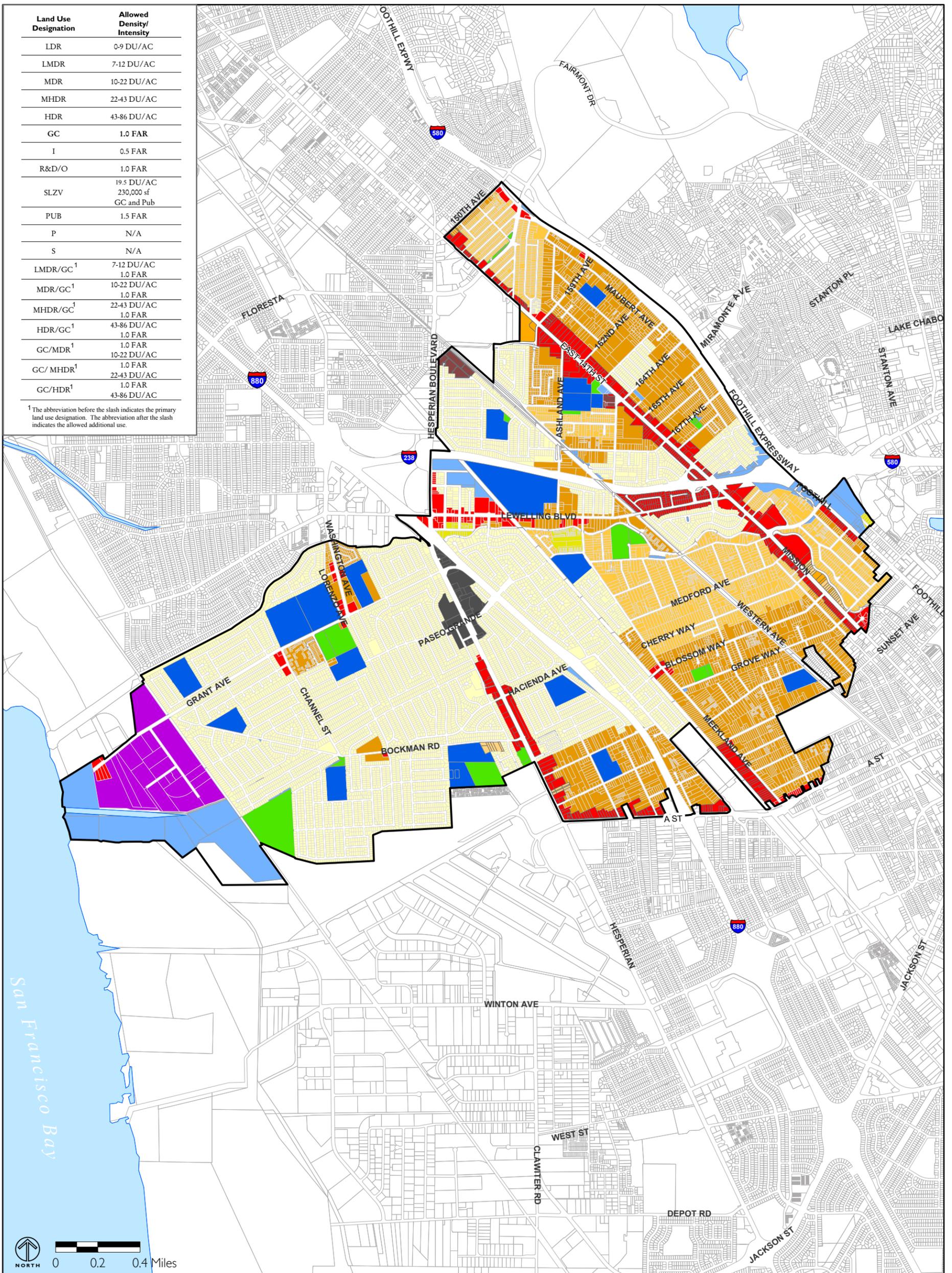
Source: Alameda County Community Development Agency

**FIGURE 3-3**

- |  |                            |   |                         |
|--|----------------------------|---|-------------------------|
|  | <b>Study Area Boundary</b> |  | <b>Freeway</b>          |
|  | <b>Corridor</b>            |  | <b>Neighborhood</b>     |
|  | <b>District</b>            |  | <b>Special Precinct</b> |

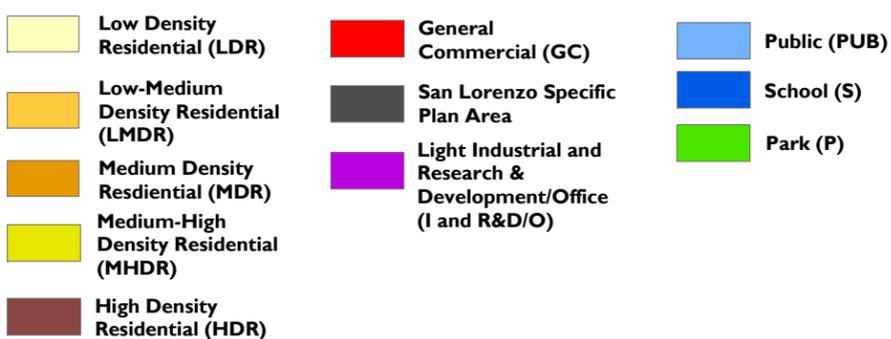
**URBAN DESIGN FRAMEWORK**

**COUNTY OF ALAMEDA**  
EDEN AREA GENERAL PLAN



Source: Design, Community & Environment. August 2006

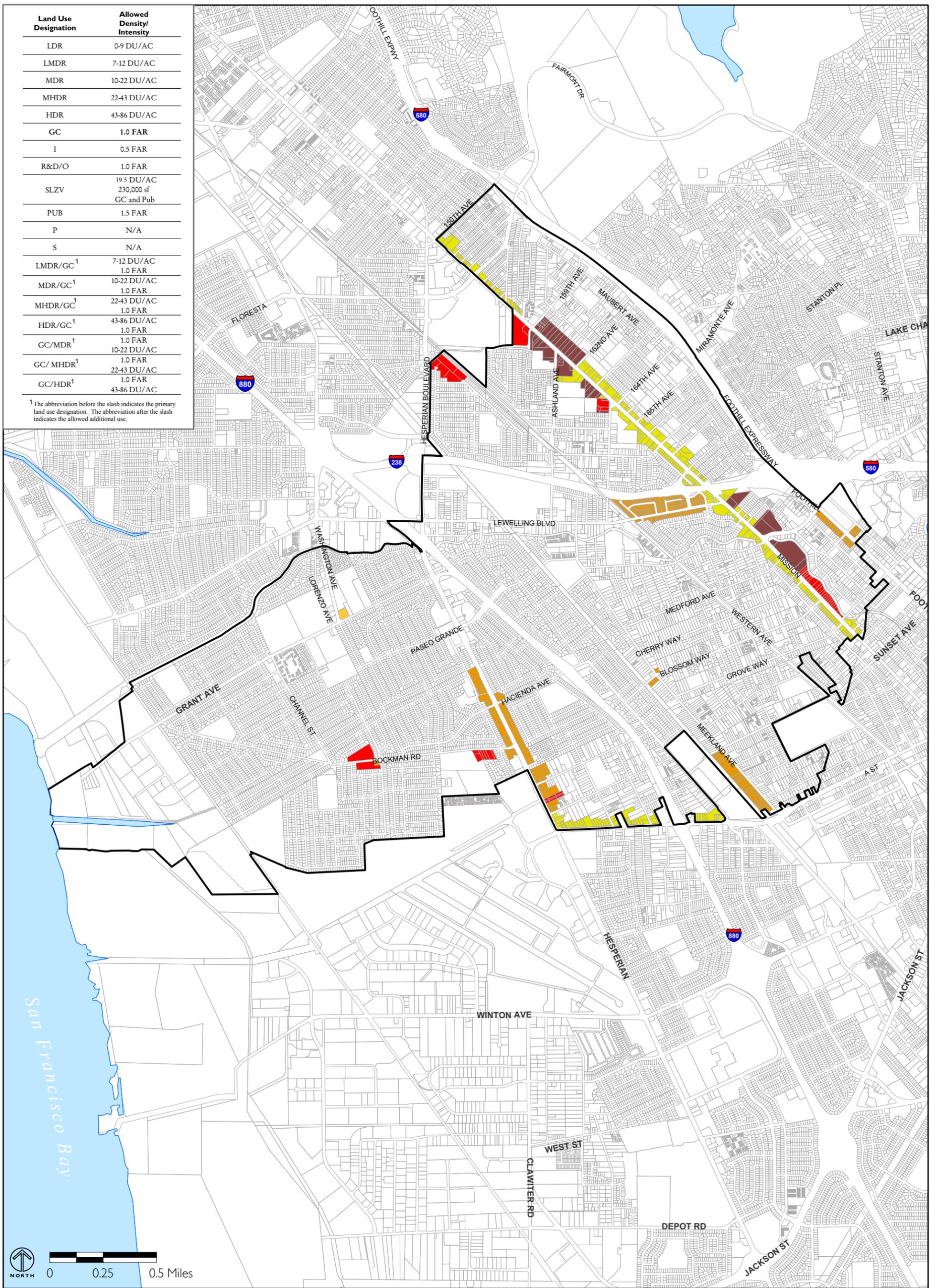
FIGURE 3-4A



GENERAL PLAN LAND USE DESIGNATIONS

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN





Source: Design, Community & Environment. March 2007

FIGURE 3-4B



**GENERAL PLAN LAND USE RESIDENTIAL OVERLAYS**



described in the Introduction; however, there are often numerous distinct Neighborhoods within each community.

As the General Plan is implemented, the character of Neighborhoods will be enhanced and the livability of the Eden Area will increase. General Plan implementation will take place through transportation improvements, appropriate infill development, expansion of the urban forest and improvement of buildings in disrepair. Transforming major arterials from barriers into areas where community life is focused can augment the sense of place and revitalize business development. Finally, recognizing and enhancing existing commercial areas, parks, schools and other community buildings to create community resources can provide safe and attractive local gathering places for families to meet and children to play.

b. Corridors

Corridors are linear areas located along arterial roads, typically one to two lots deep on either side of the road. They contain a mix of retail, office, and residential uses. There are five Corridors in the Eden Area:

- ◆ East 14th Street/Mission Boulevard
- ◆ Hesperian Boulevard
- ◆ Lewelling Boulevard
- ◆ 'A' Street
- ◆ Meekland Avenue

Corridors in the Eden Area are, by and large, an underutilized resource. They contain a variety of strip and stand-alone commercial buildings. Most have buildings set back from the street with little relationship to one another. Some stretches of these important thoroughfares have parcels that are vacant or contain buildings that are underutilized or in a state of disrepair.

This General Plan seeks to guide the transformation of Corridors from features that divide the community into areas that bring people together. Due to the amount of vacant and underutilized land, Corridors are a key to revitalizing the entire Eden Area and enhancing the economic development for the future. Corridors should be attractive, contain a diverse mix of uses at

higher densities than currently exist, provide safe travel for automobiles, bicycles, pedestrians and transit vehicles, and move traffic effectively. Street improvement plans already adopted for East 14th Street/Mission Boulevard, Hesperian Boulevard and Lewelling Boulevard are a first step in this process. These plans must be augmented by well-designed and higher-intensity infill development and economic development strategies that encourage redevelopment and enhance the quality of life in the Eden Area.

c. Districts

Districts are areas of higher intensity development located along, but distinct from, Corridors in the Eden Area. They are important activity centers that draw employees, shoppers, residents and visitors to the Eden Area. Districts emphasize a pedestrian- and transit-oriented environment, incorporating some mixed use, where appropriate, at a higher density than the surrounding areas. The Specific Plan developed for the San Lorenzo Village Center provides an excellent example of how Districts should function in the Eden Area.

In the Eden Area, there are no existing Districts. Instead, the community's focal points are limited to shopping areas, parks, and the Community Center in Ashland Park. However, five locations have been identified in this General Plan for the creation of new Districts. These areas are:

- ◆ San Lorenzo Village Center.
- ◆ East 14th Street at Ashland Avenue.
- ◆ Mission Boulevard at Mattox Road.
- ◆ The Four Corners area at the intersection of Hesperian Boulevard and Lewelling Boulevard.
- ◆ The intersection of Hesperian Boulevard and 'A' Street.

These new Districts are located at key intersections and along high-frequency transit routes. These areas currently have retail, office and other commercial uses already in place, many of which are predominantly automobile-oriented. They also have parcels that are either vacant or underutilized. A portion of

the Mission Boulevard at Mattox Road District is located within an earthquake hazard area called an Alquist-Priolo Hazard Zone. The parcels within this zone must be developed according to the constraints of the *Alquist-Priolo Earthquake Fault Zoning Act*, as described in the Public Safety Element.

Creating Districts will provide the Eden Area with valuable meeting places for the community. Channeling new development to the Districts should be a primary focus of the economic development activities of the County Community Development and Redevelopment Agencies. One of the projects planned by the Redevelopment Agency will be the placement of 10 historic markers in the sidewalk along Lewelling Boulevard, at the locations of former and current historic buildings. The creation of successful, new commercial and residential centers can draw in additional private investment. The resulting vital Districts will serve as community spaces where locals come to eat, shop, play and socialize.

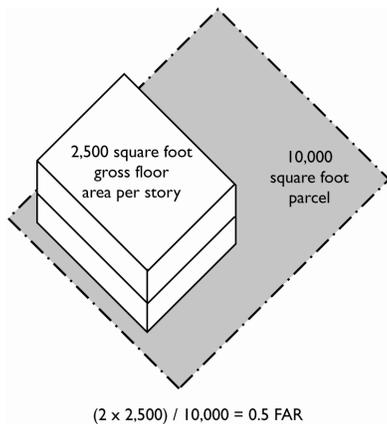
d. Special Precincts

A Special Precinct is a portion of the Eden Area where unique and necessary uses are located. There is one Special Precinct in the Eden Area, the Grant Avenue Industrial Area, which lies at the western end of the San Lorenzo community and is a large concentration of industrial uses located between residential uses and the San Francisco Bay. The Grant Avenue Industrial Area is separated from surrounding neighborhoods by the westernmost set of Union Pacific Railroad tracks. The Grant Avenue Industrial Area is a Special Precinct that should be preserved because it provides a home for industrial uses that benefit the Eden Area and the rest of Alameda County.

C. *Land Use Designations*

Land use designations indicate the intended future use of each parcel of land within the Eden Area. Land use designations are policy statements with the force of a regulation. They are developed to provide both a vision of the organization of uses in the future and a flexible structure to allow for changes in

economic conditions and community visions. In other words, designations should generally state what the future use should be but should not be so specific as to diminish the value of the land. The General Plan Land Use Designation Map shown in Figure 3-3 illustrates the allowed types of land uses throughout the Eden Area. Acreages of each land use designation are presented in Table 3-2.



*Illustration of Floor Area Ratio*

For each land use designation, the uses allowed and the standards of population density and building intensity are specified. Development intensity for residential land uses is reflected as an average number of dwelling units per gross acre. For non-residential designations, including General Commercial, Research and Development/Office, Industrial and Public designations, intensity is expressed as an average Floor Area Ratio (FAR). FAR is a ratio of the total building floor area in proportion to the size of the building's lot. For example, if a 10,000-square-foot lot has one two-story building and the gross area of each story is 2,500 square feet, the building has a total gross area of 5,000 square feet and a FAR of 0.5.

In the Eden Area, there are also certain parcels that are allowed to have both residential and commercial uses. On these parcels, the primary and secondary uses are identified. Unless it is otherwise stated, the primary use must occur on the parcel and the secondary use is optional. For example, if a parcel is designated as General Commercial with a secondary use of Medium Density Residential, the General Commercial use must be located on the parcel and the residential use is allowed but not required. On these parcels, new development may occur at the maximum density allowed in the residential designation and to the maximum FAR for commercial development. Neighborhood-serving commercial uses, such as grocery and convenience stores, salons, professional offices, restaurants, drug stores, dry cleaners, day care centers and banks, are desired in these areas.

The secondary use designation allows property owners to develop a vertically "mixed use" project, such as residential or office uses over retail, or to develop a horizontal mix of uses on their parcel with separate buildings for different

TABLE 3-2 **ACRES BY LAND USE DESIGNATION**

Land Use Designation	Number of Acres	Allowed Density/ Intensity <sup>a,b</sup>
Low Density Residential (LDR)	1,136.1	0-9 DU/AC
Low-Medium Density Residential (LMDR)	371.9	7-12 DU/AC
Medium Density Residential (MDR)	683.4	10-22 DU/AC
Medium-High Density Residential (MHDR)	15.5	22-43 DU/AC
High Density Residential (HDR)	9.4	43-86 DU/AC
Medium Density Residential and General Commercial as a Secondary Use (MDR/GC)	8.3	10-22 DU/AC 1.0 FAR
Medium-High Density Residential and General Commercial as a Secondary Use (MHDR/GC)	7.4	22-43 DU/AC 1.0 FAR
High Density Residential and General Commercial as a Secondary Use (HDR/GC)	7.5	43-86 DU/AC 1.0 FAR
General Commercial (GC)	46.0	1.0 FAR
General Commercial and Low-Medium Density Residential as a Secondary Use (CG/LMDR)	6.4	1.0 FAR 7-12 DU/AC
General Commercial and Medium Density Residential as a Secondary Use (GC/MDR)	59.6	1.0 FAR 10-22 DU/AC
General Commercial and Medium-High Density Residential as a Secondary Use (GC/MHDR)	71.5	1.0 FAR 22-43 DU/AC
General Commercial and High Density Residential as a Secondary Use (GC/HDR)	38.8	1.0 FAR 43-86 DU/AC
Light Industrial (I)	116.8 <sup>c</sup>	0.5 FAR
Research and Development/Office (R&D/O)	116.8 <sup>c</sup>	1.0 FAR
San Lorenzo Specific Plan Area (SLSPA)	28.7	19.5 DU/AC (average for the District) 230,000 square feet of C&P
Public (Pub)	207.5	1.5 FAR
Park (P)	77.6	N/A
School (S)	210.9	N/A
<b>Total Acres</b>	<b>3,094.7</b>	

<sup>a</sup> DU/AC stands for dwelling units per acre.

<sup>b</sup> FAR stands for Floor Area Ratio.

<sup>c</sup> The acreage for both Industrial and Research and Development/Office covers the same parcels as these two designations are used simultaneously in this General Plan. Thus, this acreage is only counted once in the Total Acreage for the Eden Area.

Source: Design, Community & Environment.

uses. The secondary use designations primarily occur on major arterial roadways and are intended to provide flexibility for property owners to develop their property in ways that meet changing economic conditions and to encourage vibrant Corridors and Districts with a mix of uses.

The Land Use Designation Map is implemented through the Zoning Ordinance, which provides more specific classifications than this General Plan. Thus, the specific density ultimately allowed on each parcel may be lower than the maximum density identified in the applicable land use designation due to site constraints or other County regulations. In some cases, more than one zoning district may be consistent with a single land use designation. Other parts of the Alameda County General Ordinance Code, particularly the Subdivision Ordinance, provide additional development standards. Under State law, all County ordinances and regulations must be consistent with the General Plan.



*Medium density residential development*

At this time, the Eden Area is substantially built out. Though there are individual sites that are either vacant or abandoned, most parcels currently have some form of development already in place. For this reason, the General Plan recognizes that the existing land use on a site may be different from the intended future use on a parcel. On these parcels, the uses may remain in place until such time as the property is redeveloped, at which point new development should reflect the land use regulation in this plan.

### **1. Residential Designations**

All of the following land use designations are categorized as residential land uses with specific density requirements. Every residential land use designation allows dedicated affordable housing units so long as the buildings match the density requirements. Uses such as community centers, parks, schools, places of worship, care centers and home occupations may also be permitted in residential areas.

a. Low Density Residential (LDR)

The Low Density Residential designation applies to the majority of the residential areas in the Eden Area. This designation indicates a single-family, detached housing unit with a maximum density of 9 dwelling units per acre.

b. Low-Medium Density Residential (LMDR)

The Low-Medium Density Residential designation allows a mix of single-family, detached housing and some duplexes and triplexes. Multi-unit and mobile home parks may also be allowed where it is deemed to be appropriate by the County based on impacts to surrounding uses. The Low-Medium Density Residential designation allows densities of 7 to 12 dwelling units per acre.

c. Medium Density Residential (MDR)

The Medium Density Residential designation allows for a mix of single-family, duplex, triplex, townhouse and multi-family buildings with densities ranging from 10 to 22 dwelling units per acre. Mobile home parks are also allowed, where appropriate.

d. Medium-High Density Residential (MHDR)

The Medium-High Density Residential designation is characterized by townhouses and multi-family buildings, generally between two and four stories. Allowed densities are between 22 to 43 dwelling units per acre.

e. High Density Residential (HDR)

The High Density Residential designation is the most urban designation in the Eden Area. Allowed uses include multi-family residential buildings between three and six stories. Allowed densities are between 43 to 86 dwelling units per acre. The designation is intended to allow for intensification of growth over time along major roadways.

f. General Commercial as a Secondary Use (/GC)

General Commercial uses are allowed as a secondary use on specified parcels of land designated as Medium Density Residential, Medium-High Density



*Residential neighborhood*

Residential, or High Density Residential. There are currently four locations where this designation is applied in the Eden Area. In one location, commercial uses are required. This location is:

- ◆ On seven parcels on the east side of Hesperian Boulevard, north of Sunset Boulevard.

In three areas, commercial uses may be included, but are not required. These areas are:

- ◆ At the northern end of East 14th Street adjacent to the Bayfair Mall.
- ◆ At the southern end of Mission Boulevard where existing residential uses are currently located.
- ◆ On Hesperian Boulevard, adjacent to the BART station and on publicly owned property that is currently used for BART parking.

## 2. General Commercial (GC)

The General Commercial designation allows for a wide range of commercial uses that encompass small offices, local and regional retail establishments and automobile-oriented uses to meet the needs of Eden Area residents, employees and pass-through travelers. Offices are particularly encouraged in commercially designated areas to enhance the employment base of the area. Commercial parcels have a maximum FAR of 1.0. Allowed uses include the following:

- ◆ Neighborhood commercial uses include grocery and convenience stores, salons, professional offices, restaurants, fast-food establishments, auto service stations, drug stores, dry cleaners, day care centers, shoe stores, tool and appliance repair shops, contractors' shops, hardware stores and banks. Neighborhood commercial uses are best located in centralized areas capable of serving the greatest number of households with the least travel distance and best access to alternate modes of transportation and freeways.
- ◆ Regional commercial uses include factory outlets, discount stores, regional shopping malls, automobile sales, office uses, medical facilities and

home improvement centers. These uses are best located in areas with the highest level of automobile access but should also contain a safe pedestrian environment.

- ◆ Highway commercial uses include hotels and motels, restaurants, and motor vehicle and gasoline service stations that provide services to the traveling public and allow for convenient freeway access. These uses should be located in close proximity to freeway ramps.

On some commercial parcels throughout the Eden Area, residential uses are allowed as a secondary use (/LMDR, /MDR, /MHDR, /HDR). Public uses are also allowed in areas with commercial designations.

### **3. Light Industrial (I)**

This land use designation is applied to the Grant Avenue Industrial Area, which has substantial amounts of existing industrial uses.

Specific uses allowed in the Light Industrial designation range from light manufacturing to warehousing and distribution uses to research and development or flexible office space. Light Industrial parcels have a maximum FAR of 0.5. Other uses are allowed in small amounts to serve the daily needs of the workforce. These uses include offices, retail and community facilities. Live/work units may be approved as conditional uses if they conform to all relevant General Plan policies.

### **4. Research and Development/Office (R&D/O)**

The purpose of this designation is to expand the job and economic base of the Eden Area and to provide more Eden Area residents with the potential to work close to home. Specific uses allowed in the R&D/O designation include medium- and large-scale uses such as corporate offices, high-tech, medical or hospital, legal, insurance and similar users. The R&D/O designation is intended for office type development projects. Smaller scale offices are allowed on the commercially designated lands. R&D/O parcels have a maximum FAR of 1.0. Other uses, including retail and community facilities, are allowed in small amounts to serve the daily needs of the workforce.

Live/work units may be approved as conditional uses if they conform to all relevant General Plan policies.

Currently, there are no R&D/O uses in the Eden Area and the designation is applied to lands that also have a Light Industrial designation. The purpose of the split designation is to allow the conversion of industrial uses to R&D/O uses over the life of this General Plan. R&D/O uses are relatively large in scale, typically one to three stories in height. As the Special Precincts develop, efforts should be made to create a safe pedestrian environment and to provide connections to nearby Neighborhoods and commercial uses.

#### **5. San Lorenzo Village Specific Plan Area (SLZVSPA)**

This designation is designed to implement the vision, uses and intensities in the San Lorenzo Village Center Specific Plan, which was adopted by Alameda County in 2004. The Specific Plan provides a long-term vision for the historic San Lorenzo Village area on Hesperian Boulevard from the Interstate 880 overcrossing on the north to around Via Mercado on the south. The designation covers approximately 30 acres and envisions the area as an active center with stores, public facilities, cultural uses, outdoor spaces and attractive streetscape environment with new multi-family, mixed use development. New development should create a visually rich, architecturally distinct area with an identity unique to San Lorenzo. The area should have a comfortable, human-scaled environment while at the same time encourage buildings with a significant architectural presence.

The maximum amount of cumulative development allowed in the San Lorenzo Village area is 580 housing units with an average density of 19.5 dwelling units per acre and a maximum of 230,000 square feet of commercial and public uses. Specific land use, urban design, dimensional standards and other policies and standards are identified in the Specific Plan. The Specific Plan must be followed as the controlling document for the San Lorenzo Village area as defined in that document.

## **6. Public (Pub)**

The purpose of this designation is to provide locations for uses that support government, civic, cultural, health and infrastructure aspects of the community. These facilities have been located in a manner intended to best serve the Eden Area and the rest of the County.

The designation indicates public ownership as well as public use and covers uses such as the water treatment plant, fire stations, police stations, post offices, libraries, hospitals and publicly-owned office buildings. Public uses may include ancillary non-public uses that support the primary use. Public uses are scattered throughout the Eden Area but are most notable in the Grant Avenue Industrial Area. Public uses are also allowed in areas with residential and commercial designations. The maximum FAR for Public uses is 1.5.

## **7. Park (P)**

This designation provides for current and expected future locations for public parks of all sizes in the Eden Area. Parks may include a wide range of uses including active playing fields, recreation facilities including buildings, picnic areas, plazas, bicycle and walking trails, water features, passive green spaces, landscaped areas and natural open spaces.

## **8. School (S)**

This designation identifies publicly-owned or operated educational facilities of all sizes serving all age groups in the Eden Area. The designation also includes sites that are owned or used by the school districts for school-related purposes such as maintenance or corporation yards as well as parcels which are leased to private entities. Sites designated as 'School' may also be developed as residential uses at a density comparable to surrounding uses if the school district which owns them determines that they are no longer needed for educational purposes.

*D. Goals, Policies, and Actions*

The goals, policies and actions in the Eden Area General Plan are based on the principles of livability and smart growth. They were developed through an extensive public involvement process and are written to preserve and enhance the unique characteristics of the Eden Area. The urban design framework of Neighborhoods, Corridors, Districts and Special Precincts provides the backbone for this section. This framework is supplemented with goals, policies and actions on removal of substandard conditions, economic development and cultural resources.

**1. General Goals, Policies and Actions**

This section provides general goals, policies and actions that apply to the Eden Area as whole.

<b>Goal LU-1</b>	<b>Establish a clearly defined urban form and structure to the Eden Area in order to enhance the area's identity and livability.</b>
------------------	--

Policies

- P1. The County should foster a sense of unity among the five communities of the Eden Area through its direct actions.
- P2. New development and redevelopment shall be encouraged to advance a unified and coherent pattern of development, maximize the use of land and fill in gaps in the urban environment.
- P3. New development and redevelopment shall be organized as a series of Neighborhoods, Corridors, Districts and Special Precincts. Each is defined as follows:

- ◆ Neighborhoods are residential areas with a common character or identity, such as a common history or central meeting place like a park, school or retail center.
  - ◆ Corridors are linear areas located along arterial roads, typically one to two lots deep on either side of the road, that contain a mix of retail, office and residential uses.
  - ◆ Districts are areas of higher intensity development located along Corridors in the Eden Area. Districts shall be designed to serve as community meeting places where residents and visitors can shop, eat, play and socialize.
  - ◆ Special Precincts are single-use districts that serve a special purpose in the Eden Area, namely job-producing Light Industrial, Research and Development/Office uses or large-scale Public uses.
- P4. An adequate amount of land shall be designated in this General Plan to permit the desired development in the Eden Area.
- P5. The County shall ensure that land is designated to increase economic development opportunities while also providing for future housing needs.
- P6. Residential development should be balanced with the development of jobs and retail growth and the ability to provide services to the existing population of the Eden Area.
- P7. On parcels that have a viable use in place when this General Plan is adopted, the uses may remain in place until such time as the property is redeveloped. When a property is redeveloped, the new use shall be required to conform to the land use designations in this General Plan.

Actions

- A1. Amend the Zoning Ordinance Map for overall consistency with this General Plan.
- A2. Review the Land Use Designation Map every five years to ensure that the amount and location of land designated in various categories remains appropriate.

<b>Goal LU-2 Promote and maintain physically coherent and logical boundaries of the Eden Area.</b>
--

Policies

- P1. The County shall discourage the cities of Hayward and San Leandro from annexing individual parcels of County land, especially when those parcels have viable, non-residential land uses, such as large commercial developments.
- P2. The County should oppose the annexation of properties where the County's loss of these properties may have an adverse impact on the County's tax base.
- P3. The annexation of unincorporated islands and the logical, minor re-configuration of jurisdiction boundaries should be encouraged to provide rational service boundaries.

Actions

- A1. Work with the Alameda County Local Agency Formation Commission (LAFCO) to maintain physically coherent and logical boundaries.

**Goal LU-3 Expand cultural and arts facilities in the Eden Area.**

Policies

- P1. The County should support the development of a range of cultural and arts facilities throughout the Eden Area, such as museums, performing arts centers and art exhibition spaces.
- P2. The County should support the efforts of non-profit organizations and the private sector to increase cultural arts facilities and events in the Eden Area.
- P3. Public art should be included in areas with an existing or expected high level of pedestrian activity, such as parks, plazas and identified Districts.

**2. Neighborhoods**

Neighborhoods make up more than two-thirds of the Eden Area. Thus, the quality and appearance in these areas is of critical importance to the urban design framework. The following goals, policies and actions are intended to create vibrant and attractive Neighborhoods.

**Goal LU-4 Preserve the quality and character of existing Neighborhoods in the Eden Area.**

Policies

- P1. The County shall advance the ongoing conservation, maintenance and upgrading of Neighborhoods through its direct policies and actions.
- P2. New residential construction should be of a high-level of craftsmanship and use exterior materials and façade designs that enhance the appearance of each Neighborhood.

- P3. The development of “gated” communities or the gating of already developed Neighborhoods or subdivisions should be discouraged.
- P4. Home occupations in Neighborhoods should be allowed to the extent that they do not present nuisances to the surrounding residential uses as identified in Alameda County Administrative Code Chapter 6.64 Rural and Urban Residential and Non-residential Property Nuisances.
- P5. Permit applications for alterations, additions and infill development shall be reviewed to ensure that they enhance the character and quality of Neighborhoods.
- P6. The County shall discourage project rezonings and Planned Developments, especially with multi-family uses that have historically resulted in poor residential design.
- P7. The County shall utilize its Design Guidelines as an implementation tool to require higher quality and more appropriately scaled development in the Eden Area.

Actions

- A1. Develop and implement design guidelines to maintain the desirable qualities and character of existing neighborhoods.
- A2. Conduct a study to explore the feasibility of creating “Preservation Corridors” to preserve the look and feel of existing neighborhoods.
- A3. Collaborate with the County Redevelopment Agency (RDA) to promote neighborhood identity and beautification through development of gateway amenities such as signage at boundaries and banners along major streets. Promote the Cherryland Beautification Committee, the Ashland Com-

munity Association and the Cherryland Community Association as civic partners to implement this goal.

- A4. Use the project referral process to allow ample review time of pending projects, and ensure the Neighborhood Associations such as the San Lorenzo Village Homes Association, the Ashland Community Association and the Cherryland Community Association are aware of significant decisions regarding development projects in their areas.
- A5. Conduct a study to consider the establishment of neighborhood-level design review boards in residential neighborhoods in the Eden Area.

<b>Goal LU-5 Allow appropriately scaled development in Neighborhoods.</b>
---

Policies

- P1. New development or redevelopment should not result in displacement of existing homes without providing for adequate replacement housing.
- P2. New residential projects in Neighborhoods should enhance the existing character of the area and have high quality site planning and architectural design. Architectural diversity and variety, including variations in lot sizes, setbacks, orientation of homes and other site features should be allowed to maintain visual interest.
- P3. The creation of new parks shall be encouraged within Neighborhoods on vacant or underutilized parcels.

- P4. Infill development that increases the density of existing Neighborhoods may be allowed so long as it is well designed and enhances the character of the Neighborhoods.
- P5. Secondary units on individual parcels shall be allowed and encouraged, as per state law.
- P6. New development shall not be approved unless there is infrastructure in place or planned to support the growth.
- P7. New residential development shall pay its fair share of the cost of capital improvements needed to serve that development.
- P8. Live-work development projects shall be allowed in areas that can serve as a buffer between residential and commercial or industrial uses.

Actions

- A1. Develop design guidelines for infill development in Neighborhoods. Guidelines should provide principles for addressing existing buildings and the street, and designing attractive and appropriate building facades.

<b>Goal LU-6</b>	<b>Support the redevelopment of narrow, deep lots throughout the Eden Area in a manner that enhances the quality of life for existing and future residents.</b>
------------------	---

Policies

- P1. The County shall encourage the redevelopment of underutilized large, deep lots to increase opportunities for a range of housing types.
- P2. The creation of “flag lots” shall not be allowed when narrow, deep parcels are redeveloped, except when historic structures are present.
- P3. Narrow, deep lots should be developed in a manner that enhances the quality and character of adjacent development.
- P4. The County shall encourage the assembly, design and development of two or more adjacent, narrow, deep lots to ensure that Neighborhood quality is enhanced and to capitalize on improved site design possibilities. Specific site design techniques that should be explored include:
- ◆ Internal streets to serve multiple blocks.
  - ◆ Pedestrian connections between adjacent parcels.
  - ◆ Continuous and consistent landscaping between parcels.
- P5. The County should encourage the creation of neighborhood associations, mutual use and joint use agreements or reciprocal easements where parcels are developed together and driveways shared.

Actions

- A1. Develop specific guidelines for the development of narrow, deep lots that address intensity, access, relationship to adjacent uses, and minimum size of parcels that can be subdivided.

- A2. Create an incentive program to help property owners to assemble lots and for multiple owners to coordinate on the development of adjacent parcels.
- A3. Encourage any older homes to be included in the Homeowners Association/Condominium Association for new subdivisions with the intent of maintaining and upgrading the appearance of older structures.
- A4. Explore the development of a “Density Variable” (DV) overlay zone in Cherryland that allows for appropriate density and design flexibility on narrow, deep lots.

### 3. Corridors

Corridors are linear areas with a mix of uses along major roadways that provide a variety of needs for surrounding Neighborhoods. This section provides guidance about the County’s plan for the Corridors in the Eden Area.

<b>Goal LU-7    Create attractive Corridors with a mix of uses throughout the Eden Area.</b>
--

#### Policies

- P1. The redevelopment of corridors shall be a priority for the County as it is a key to revitalizing the Eden Area.
- P2. New commercial and Medium, Medium-High and High Density residential development shall be focused along identified Corridors in the Eden Area. The Corridors are:
  - ◆ East 14th Street/Mission Boulevard
  - ◆ Hesperian Boulevard
  - ◆ ‘A’ Street

- ◆ Lewelling Boulevard
  - ◆ Meekland Avenue
- P3. The County shall pursue and allow the assembly of parcels to create larger and more easily developable lots for development along Corridors.
- P4. Low-density, drive-in commercial uses shall be discouraged except near freeway entrances and exits.
- P5. New development along Corridors shall meet the following urban design requirements:
- ◆ Buildings shall be designed with minimal setback to create a consistent, pedestrian-oriented environment.
  - ◆ Developments shall be designed to have an active street face with windows, entrances, awnings and other amenities.
  - ◆ Building entrances shall be oriented to the street.
  - ◆ Parking and loading facilities as well as other areas for similar activities shall be located behind or on the side of buildings away from the main street frontage.
  - ◆ The number of curb cuts and other intrusions of vehicles across the sidewalks shall be minimized.
  - ◆ Buildings shall be constructed using high-quality materials.
  - ◆ To the extent feasible, buildings should step down in height to adjacent Low-Medium Density residential uses at the edges of Corridors where they meet adjacent Neighborhoods.
- P6. The use of shared parking arrangements for residential and commercial buildings should be allowed and encouraged in

Corridors where possible, and where impacts to adjacent residential neighborhoods would be minimal.

- P7. Public transit amenities shall be included, where appropriate, with the approval of new development projects.
- P8. New projects should maintain and strengthen pedestrian connections to major transit facilities such as BART, Amtrak and bus stops.
- P9. The County shall encourage the creation of landscape, lighting and special assessment districts to improve the pedestrian environment along Corridors.

#### Actions

- A1. Develop mixed use guidelines with input from multiple agencies and community stakeholders.
- A2. Create an incentive program to help individual property owners assemble lots and multiple property owners coordinate on the development of adjacent parcels.
- A3. Amend the Zoning Ordinance to provide incentives for shared parking arrangements where possible, and where impacts to adjacent residential neighborhoods would be minimal.
- A4. Create design guidelines for Corridors to ensure that new growth meets the goals of this General Plan. At minimum, these guidelines shall address height, setbacks, landscape, building massing and scale. Pedestrian access and connections into and through the development, services for special populations such as seniors and families with young children, and special program elements to make the devel-

opment more responsive to transit proximity should also be addressed.

- A5. Upon adoption of the General Plan, review and update the *Ashland-Cherryland Business District Specific Plan* to reflect urban design qualities and land use designations identified in this General Plan.
- A6. Implement existing streetscape plans for East 14th Street/Mission Boulevard, Lewelling Boulevard, and Hesperian Boulevard.
- A7. Create a priority list of locations for streetscape improvements along corridors that will encourage increased private development in key locations.
- A8. Continue to work with the cities of Hayward and San Leandro to ensure that East 14th Street/Mission Boulevard, Hesperian Boulevard and 'A' Street have a consistent streetscape between jurisdictions.
- A9. Pursue potential funding for Context Sensitive Design (CSD) from the federal Department of Transportation. Such improvements might entail sound barriers to reduce freeway noise levels or landscaping such as densely planted trees and shrubs to provide aesthetic visual screening of the freeway from the Neighborhoods.
- A10. Improve directional, way-finding signage throughout the Eden Area directing traffic to retail corridors from freeways.

#### 4. Districts

Districts are intended to be pedestrian- and transit-oriented centers of mixed use development. This section presents the County's vision for creating and redeveloping the locations identified as Districts.

**Goal LU-8 Create Districts that serve as shopping, living, meeting, and gathering places.**

Policies

- P1. The County shall pursue the creation of distinct Districts throughout the Eden Area. Districts should be places where residents gather to shop, socialize and eat. They should have ample public spaces such as plazas, wide sidewalks, and outdoor seating for restaurants and cafes. The land use patterns should emphasize human-scale design, streetscape and transit improvements and a lively mix of higher density residential, commercial and public uses.
- P2. The County shall pursue redevelopment of the following general areas to create vibrant Districts:
- ◆ San Lorenzo Village Center
  - ◆ East 14th Street at Ashland Avenue
  - ◆ Mission Boulevard at Mattox Road
  - ◆ The Four Corners area at the intersection of Hesperian Boulevard and Lewelling Boulevard
  - ◆ The intersection of Hesperian Boulevard and ‘A’ Street
- P3. The County should strategically pursue commercial and vertically-mixed use development (i.e. residential uses over commercial uses) in Districts. Such projects should be a priority for the County in terms of permit processing and County financial assistance, where feasible.
- P4. Pedestrian amenities including benches, human-scaled lighting, trash cans, textured crosswalks and sidewalks, bollards and other features should be included in the redesign of all Districts.

- P5. The assembly of parcels for larger development projects and more developable lots shall be encouraged in Districts.

Actions

- A1. Streamline and expedite all development approvals including design review and building permit applications for development projects in Districts that meet the design and land use goals in this General Plan or are identified in existing, approved Specific Plans, such as the Ashland-Cherryland Business District Specific Plan.
- A2. Create an incentive program to help property owners to assemble lots and for multiple owners to coordinate on the development of adjacent parcels.
- A3. Actively assist potential developers and the Redevelopment Agency to assemble parcels in Districts to allow for larger development projects.
- A4. Work with the City of San Leandro to develop a Specific Plan for the Four Corners District.
- A5. Work with the City of Hayward to develop a Specific Plan for the District around the intersection of Hesperian Boulevard and 'A' Street.

**5. Special Precincts**

Special Precincts provide the Eden Area with unique concentrations of industrial and public uses. These assets are an important component of the Eden Area urban design framework.

<b>Goal LU-9</b>	<b>Preserve and enhance the Grant Avenue Industrial Area Special Precinct of the Eden Area.</b>
------------------	---

Policies

- P1. The Grant Avenue Special Precinct should be enhanced and redeveloped to the greatest extent possible.
- P2. The Grant Avenue Special Precinct should be preserved for economic development purposes, including Industrial, Research and Development/Office uses.

Actions

- A1. Collaborate with RDA to develop incentives and programs to attract new R&D and industrial businesses to the Grant Avenue Special Precinct.
- A2. Conduct a study to explore potential funding sources, programs and incentives for relocating industrial uses to special precincts. Programs should consider incentives to relocate incompatible industrial uses to Grant Avenue Industrial Area and grants for environmental cleanup of vacant parcels.

**6. Neighborhood Improvement**

As is discussed in Section B above, portions of the Eden Area exhibit irregular parcel sizes, building code violations, inadequate public infrastructure, high commercial vacancy rates, buildings in disrepair, visual clutter, and high crime rates. The following goals, policies and actions are intended to address some of these conditions. Other goals that will help to eliminate these conditions are addressed in other areas of this Element and in other Elements in the General Plan.

**Goal LU-10 Ensure that the Eden Area remains attractive and free of public nuisances through enforcement and community involvement programs.**

Policies

- P1. All housing and commercial properties should be adequately maintained and, where required, rehabilitated to protect the health and safety of Eden Area residents and visitors.
- P2. The County shall maintain building inspection and code enforcement procedures that ensure that all construction is properly permitted and that construction is completed as approved.
- P3. The County should work collaboratively with homeowners associations, business associations, other community groups and residents to abate nuisances, eliminate substandard conditions and ensure that community aesthetic standards are maintained.
- P4. As a condition of property transfer, the County should require a building inspection by a private inspector and necessary repair to meet health and safety standards.
- P5. The County shall maintain graffiti removal and weed abatement programs throughout the Eden Area and respond promptly and effectively to resident complaints.
- P6. The County shall maintain public property and buildings to protect and promote health and safety thereby helping to eliminate substandard conditions in the Eden Area.

Actions

- A1. Maintain an aggressive code enforcement and nuisance abatement program to ensure that the Eden Area remains attractive and free of public nuisances.
- A2. The County should explore funding mechanisms to provide incentives for property owners who voluntarily remediate violations, including loan programs and, where appropriate, special assistance for historically significant buildings and properties.
- A3. Conduct a study of the available strategies and programs to upgrade the appearance of mobile home parks without displacing owners and tenants. Based on the conclusions from this study, initiate a program to rehabilitate the visual character of these areas.
- A4. Maintain a stringent fine procedure for gross violations of the County's code enforcement policies.

<b>Goal LU-11    Reduce the impact of Industrial development and activity on adjoining land uses.</b>
---

Policies

- P1. Existing, non-conforming industrial uses should be phased out during the course of this General Plan.
- P2. The County should not permit existing, non-conforming Industrial uses to expand their facilities except to rectify building code violations.

- P3. Industrial uses should be regulated to minimize smoke, odor, glare, excessive noise and other adverse impacts on employees and on adjoining uses and areas.
- P4. Industrial uses should be adequately fenced and landscaped. In addition, structures, parking areas and storage areas should be sited so as to minimize impacts on adjoining uses.
- P5. Industrial developments should include adequate off-street loading and unloading facilities and adequate parking areas for employees, automobiles and trucks.
- P6. Truck and employee traffic generated by industrial uses should generally be restricted from using streets in residential and commercial areas, except on designated truck routes as specified in the Circulation Element of this General Plan.
- P7. Truck parking on public streets in non-industrial areas shall be prohibited.
- P8. Industrial structures, facilities and sites should be maintained in order to improve the appearance and economic vitality of industrial areas.

Actions

- A1. Create and implement design guidelines and standards for industrial areas. Emphasis should be placed on creating buffers (e.g. landscaping and setbacks) between industrial and residential development.
- A2. Develop a County program to construct new buffers between residential and industrial areas using landscaping or similar techniques. This should be done as new projects are proposed, facilities are expanded or altered and/or during the Conditional Use Permit application process.

- A3. Conduct a study to explore potential funding sources, programs and incentives for relocating industrial uses to Special Precincts. Programs should consider incentives to relocate incompatible industrial uses to the Grant Avenue Industrial Area and grants for environmental cleanup of vacant parcels.
- A4. Create an incentive program to encourage property owners to redevelop non-conforming uses into uses consistent with the land use designation for the parcel.

**Goal LU-12 Improve the visual quality of the Eden Area.**

Policies

- P1. The County should not approve projects that have a substantial adverse effect on scenic vistas, substantially damage scenic resources, or substantially degrade the existing visual character or quality of the Eden Area.
- P2. The County shall pursue all possible legal and financial mechanisms to phase out and remove existing billboards. In addition, no new billboards shall be allowed in the Eden Area unless relocated.
- P3. When reviewing development proposals, the County should ensure that projects do not diminish views of natural features along public rights-of-way. Natural features are both within and around the Eden Area and include the San Francisco Bay and the East Bay hills.
- P4. To the extent feasible, the County should place utilities underground during roadway repair or widening, streetscape

improvements, construction of major new development projects or as funds become available.

- P5. New development projects shall include street trees along public right-of-ways. Street trees should provide shade to pedestrians, buffer from moving traffic and enhance the visual quality of the area.
- P6. The County shall maintain a program of landscaping, tree planting and tree preservation in the Eden Area in order to improve aesthetics and livability.

Actions

- A1. Develop incentive programs for property owners who voluntarily terminate general advertising leases and agree to phase out existing billboards. This program should be administered through the Redevelopment Agency or the Community Development Agency.
- A2. Create a funding and implementation plan to fund the placement of utilities underground on all major roadways in the Eden Area, where not already underway.
- A3. Initiate a program of street tree planting for all Neighborhood public streets. This program should include an assessment of where street trees are needed. A list of recommended street trees should be created and kept up to date by qualified landscape professionals. Street tree recommendations should be made with consideration of aesthetics, growth pattern, overall form and long-term maintenance considerations.

## 7. Economic Development

The goals, policies and actions in this section supplement the guidance associated with the urban design framework to enhance economic development opportunities in the Eden Area.

<b>Goal LU-13 Enhance economic development opportunities in the Eden Area.</b>
--

### Policies

- P1. The County shall make economic development a priority for the Eden Area.
- P2. The County shall promote the Eden Area's image as a business-friendly community.
- P3. The County shall attempt to create and maintain a jobs-housing balance of 1.5 jobs for every housing unit.
- P4. The County shall strive for a match between the type of jobs in the Eden Area and the occupations of residents as a means to encourage residents to live and work in the Eden Area.
- P5. The County shall encourage the renovation, improvement, retention and expansion of existing businesses and stores where such actions may improve the character of the Eden Area.
- P6. Encourage new business formation and entrepreneur education.

**Goal LU-14 Allow for the retention and expansion of commercial uses in appropriate locations to increase economic development opportunities and provide for the daily needs of residents.**

Policies

- P1. New commercial development shall be located in existing commercial areas and in areas well served by public transit. Specific areas are identified in the Land Use Designation Map.
- P2. Commercial uses that serve the daily and weekly needs of residents, such as supermarkets, cafes, restaurants, drug stores, dry cleaners, hardware stores, appliance repair shops and day care centers, shall be encouraged on Corridors or in Districts.

Actions

- A1. In partnership with the County Redevelopment Agency, develop and implement a business development strategy to improve the mix of retail and service businesses in the Eden Area. The strategy shall emphasize the attraction of higher-end retail shops, sit-down restaurants, entertainment uses, regional commercial uses, high-quality supermarkets and employment opportunities.

**Goal LU-15 Preserve the Industrial uses and expand Research and Development/Office uses (R&D/O) in the Eden Area.**

Policies

- P1. Research and Development/Office uses shall be encouraged in the Grant Avenue Industrial Area.
- P2. As industrial uses redevelop over time, the County should allow the transition to Research and Development/Office uses in industrial areas.
- P3. To the extent possible, new Light Industrial development should only take place within existing industrial areas.
- P4. To the extent possible, the County shall require mitigation measures to minimize the impacts of new Light Industrial development on adjacent areas.
- P5. New heavy industrial uses shall not be allowed in the Eden Area. Existing heavy industrial uses may remain in place until such time as the property is redeveloped, at which point new Research and Development/Office uses shall be allowed and new zoning for Research and Development/Office uses shall be put in place.

Actions

- A1. Collaborate with RDA to develop incentives and programs to attract new R&D and industrial businesses to the Grant Avenue Special Precinct.
- A2. Conduct a study to explore potential funding sources, programs and incentives for relocating industrial uses to special precincts. Programs should consider incentives to relocate incompatible industrial uses to Grant Avenue Industrial Area and grants for environmental cleanup of vacant parcels.

## 8. Cultural Resources

History and culture play an important role in the Eden Area. A number of historic resources have already been listed on the National Register or on the list of California State Points of Historical Interest. These goals, policies and actions seek to identify and preserve significant resources.

<b>Goal LU-16 Preserve significant cultural resources in the Eden Area.</b>
---

### Policies

- P1. Historic or culturally significant buildings and other resources in the Eden Area should be preserved.
- P2. To the extent possible, the County shall cause no substantial adverse change in the significance of a historical or archaeological resource as defined in 15064.5 of the California Environmental Quality Act (Title 14, California Code of Regulations) through its direct or indirect actions.
- P3. To the extent possible, unique paleontological resources, sites or unique geologic features shall not be directly or indirectly destroyed or significantly altered.
- P4. The County should make the Eden Area a top priority when conducting historic and cultural resources inventories in the county.
- P5. Prior to the completion of a professionally-prepared historic survey, property owners of potentially significant historic resources shall be required to prepare professional historic surveys prior to demolition of any structure. Potentially significant historic resources may be defined as those resources identified in professionally prepared surveys or

where additional evidence suggests that the property or structure may be significant.

- P6. New development, alterations and remodeling projects on or adjacent to historic properties should be sensitive to historic resources and should be compatible with the surrounding historic context.
- P7. The County should support the development of local history projects, including the collection of oral histories from local residents.

Actions

- A1. Conduct an historic resources inventory for the Eden Area to identify important historic and cultural resources.
- A2. Apply an Historic Preservation Overlay Zone as applicable to cover historic and culturally significant properties in the Eden Area after an historic resources inventory has been completed.
- A3. Develop a range of economic incentives to encourage property owners to conserve existing historic and cultural resources.
- A4. Conduct studies of districts within the Eden Area as potential historic districts including the Four Corners area, the Bohannon Company houses adjacent to San Lorenzo Village and the Elgin Street Neighborhood of Ashland.
- A5. Develop outreach materials and hold public workshops to make property owners aware of the economic benefits of cultural resource conservation actions.

- A6. Develop design and construction guidelines for the rehabilitation and renovation of historic buildings. Conforming to these guidelines shall be required prior to the issuance of a building permit.
- A7. Develop markers and print materials to identify and tell the story of local landmarks.

**Goal LU-17 Preserve and improve air quality in the Eden Area.**

Policies

- P1. New development projects shall be analyzed in accordance with the BAAQMD CEQA Guidelines. Appropriate mitigation measures to reduce vehicle trips and vehicle miles traveled should be applied to projects.
- P2. New development that would emit air toxic contaminants or odors shall provide adequate buffers and screening to protect sensitive land uses from unhealthy levels of air pollution or objectionable odors.
- P3. New development involving sensitive receptors shall be located an adequate distance from sources of air pollution and odor, such as freeways, arterial roadways and stationary air pollutant sources, or shall provide appropriate mitigation measures.
- P4. New development shall apply control measures to reduce PM<sub>10</sub> emissions from construction activities. The following list of feasible control measures, recommended by the BAAQMD for construction projects, shall be included as requirements at construction sites to reduce air pollutant emissions.

For all construction projects:

- ◆ Sprinkle all active construction areas at least twice daily and more often when conditions warrant.
- ◆ Cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least 2 feet of freeboard.
- ◆ Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- ◆ Sweep daily all paved access roads, parking areas and staging areas at construction sites.
- ◆ Sweep streets daily if visible soil material is carried onto adjacent public streets.

For construction sites that are located adjacent to sensitive receptors or warrant additional controls:

- ◆ Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- ◆ Suspend grading activities when winds exceed 25 miles per hour (mph) and visible dust clouds cannot be prevented from extending beyond active construction areas.
- ◆ Limit the area subject to excavation, grading and other construction activity at any one time.

#### Actions

- A1. The County should consider that development projects including sensitive land uses (e.g. residences and schools) be located outside of the CARB recommended buffers for specific sources of air pollution, to the extent feasible unless project specific analyses indicate an acceptable level of health

risk. Project review should include an evaluation of the adequacy of setbacks and, if necessary, identify measures to reduce health risks.

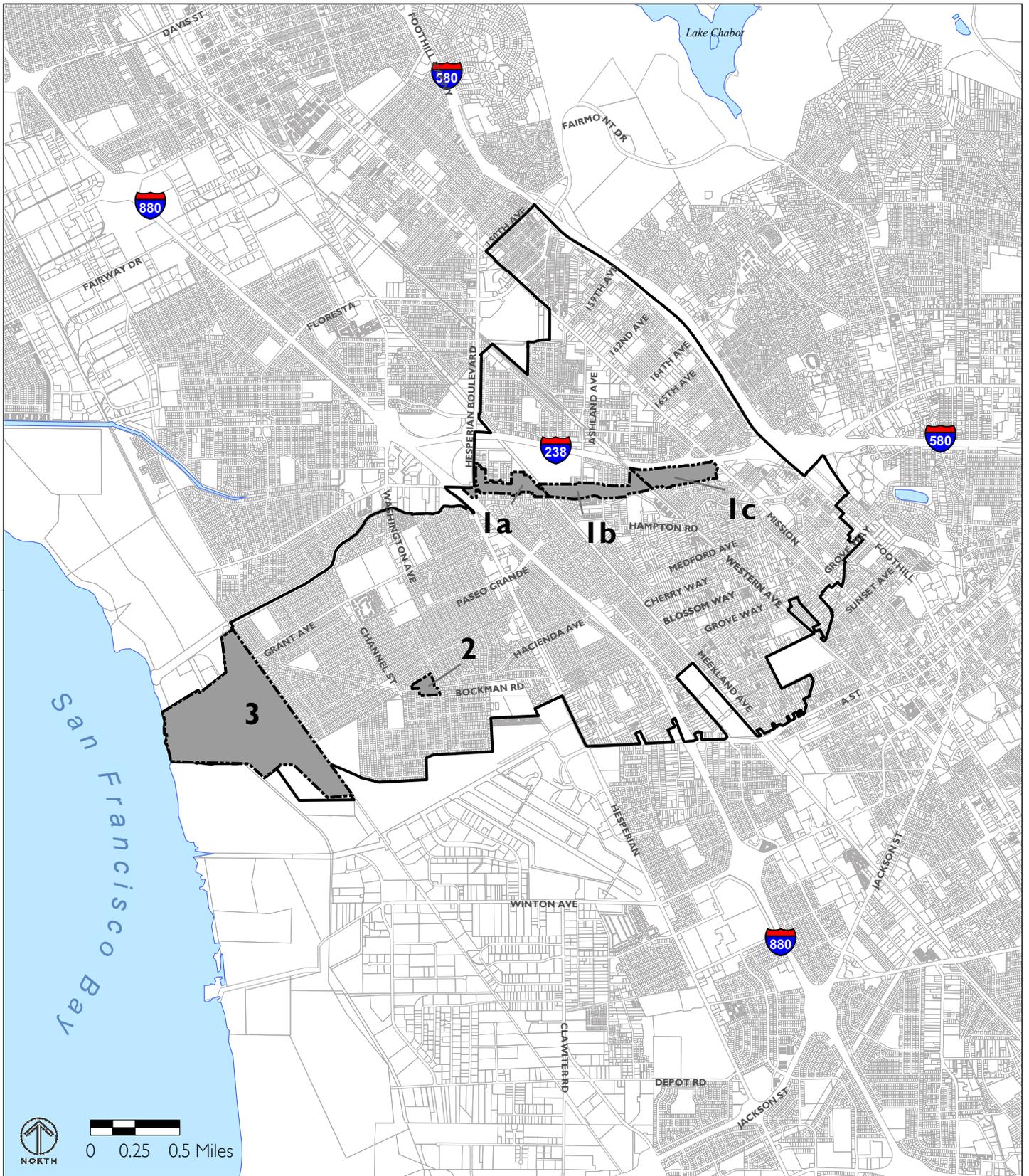
### *E. Specific Guidance Areas*

In addition to setting criteria for land use designations and goals, policies and actions to guide the intensity and density, location, and distribution of land uses for the Eden Area as a whole, this General Plan identifies specific areas where additional design and development guidance applies. These areas are shown in Figure 3-5 and discussed in this section.

#### **1. Lewelling Boulevard**

Lewelling Boulevard in the Eden Area runs between Hesperian Boulevard to the west and Mission Boulevard to the east. The area is divided into three distinct sub-areas. The first sub-area is known as “Four Corners” and is between Hesperian Boulevard and the Union Pacific Railroad Niles Subdivision tracks on which the Capital Corridor has service. This area is the historic center of the Eden Area. The second area, Middle Lewelling, is between the Union Pacific Railroad Niles Subdivision and the Union Pacific Railroad Oakland Subdivision/BART tracks just past Wickman Court and includes San Lorenzo High School and the intersection with Meekland Avenue, where numerous retail uses exist.

The third area is known as “East Lewelling” and is between the BART tracks and Mission Boulevard. This area is characterized by predominantly single-family homes, many of which have been converted to commercial uses. Interstate 238 forms the northern boundary and San Lorenzo Creek forms the southern boundary of this area. The following policy guidance applies to these areas.



Source: Design, Community & Environment, April 2005.

FIGURE 3-5

-  Study Area Boundary
-  Specific Guidance Areas

- Specific Guidance Areas**
- 1a. Four Corners
  - 1b. Middle Lewelling
  - 1c. East Lewelling
  - 2. Bockman Shopping Center
  - 3. Grant Avenue Industrial Area

**SPECIFIC GUIDANCE AREAS**

1.a. Four Corners

- 1.a.1. The Four Corners area of Lewelling Boulevard shall be developed as a District with a diverse mix of uses that serves as a community meeting and gathering place, through the development of public and private partnerships.
- 1.a.2. The intersection of Interstate 880 with Lewelling Boulevard should be designed as a gateway into the Eden Area. Special attention should be given to the types of uses and design of this area to ensure that development is visually attractive.
- 1.a.3. The County should explore designating Four Corners as a historic district due to its significance in the development of the Eden Area.
- 1.a.4. Historic buildings and sites in Four Corners should be identified and preserved.

1.b. Middle Lewelling Boulevard

- 1.b.1. Middle Lewelling Boulevard should contain a mix of residential and commercial uses. The development of residential uses should focus on the creation of affordable housing for a variety of income levels. New commercial uses should serve residential Neighborhoods as well as the High School.

1.c. East Lewelling Boulevard

- 1.c.1. East Lewelling Boulevard should be redeveloped over time to emphasize commercial uses.
- 1.c.2. Mixed use developments with residential over general commercial uses shall be allowed.

- 1.c.3. The County shall encourage the consolidation of parcels in order to create larger-scale redevelopment projects and parcels that are more developable.
- 1.c.4. Public improvements should be developed to mitigate the impacts of Interstate 238 on existing and proposed residential and commercial developments along East Lewelling Boulevard and the Four Corners area. Mitigation measures may include additional landscaping, soundwalls or other appropriate measures.

## **2. Bockman Shopping Center**

The parcels on Bockman Road between Via Chiquita and Channel Street are underutilized and should be redeveloped to enhance the livability of the area. The following policy guidance applies to this area.

### **2.a. Land Use**

- 2.a.1. Development on the parcels should be planned, designed and developed comprehensively as General Commercial with Low-Medium Density Residential allowed as a secondary use. The commercial uses should be neighborhood-serving and should be required as a part of any development project.
- 2.a.2. Development should be designed with ample public spaces, such as restaurants or cafes with outdoor seating, parks or plazas.

### **2.b. Urban Design**

- 2.b.1. At edges of the Bockman parcels, mass and bulk of new development should step down to adjacent low density residential areas to ensure a smooth transition between different densities.

- 2.b.2. Parking lots shall be located and designed so as not to compromise the pedestrian network or negatively impact adjacent Neighborhoods. Parking lots should be at the rear of buildings.
- 2.b.3. Future uses shall be pedestrian-oriented.
- 2.b.4. Projects shall include street trees, wide sidewalks, trash cans, and benches, thereby enhancing the Bockman Road streetscape.
- 2.b.5. The development shall not be a gated community and should encourage, rather than inhibit, pedestrian flow through the area.

### **3. Grant Avenue Industrial Area**

The Grant Avenue Industrial Area is a 290-acre industrial enclave, 100 acres of which are wetlands, located at the western terminus of Grant Avenue. Uses in the Grant Avenue Industrial Area are primarily warehouse and distribution facilities with the major exception of the Oro Loma Wastewater Treatment Plant. The Grant Avenue Industrial Area has a very low vacancy rate on industrial properties.

The area has a number of features that make the expansion of existing industrial uses difficult. First, it is immediately adjacent to existing residential areas. Second, trucks accessing the area must travel through residential areas and pass several schools along Grant Avenue and Washington Boulevard. This creates nuisances and safety concerns for residents. Finally, the area is surrounded by wetlands and other sensitive natural habitats.

The following specific policy guidance applies to the Grant Avenue Industrial Area.

3.a. Land Use

- 3.a.1.* The County will not actively seek to relocate existing industrial uses in the Grant Avenue Industrial Area in order to facilitate a change in the character of the area.
- 3.a.2.* As parcels redevelop over time, the County should encourage the transition of the Grant Avenue Industrial Area to Research and Development/Office uses.
- 3.a.3.* In order to provide for an orderly transition to the preferred land uses in this area, the County should rezone the area for light industrial uses that include, but are not limited to:
- ◆ Food processing/manufacturing
  - ◆ Sign painting
  - ◆ Research laboratories
  - ◆ Film production/sound recording
  - ◆ Equipment wholesalers
  - ◆ Designers and photographers
- 3.a.4.* The County shall prohibit new industrial uses that have a negative impact on adjacent Neighborhoods. Such uses include, but are not limited to:
- ◆ Equipment storage
  - ◆ Dying plants
  - ◆ Automobile storage and wrecking
  - ◆ Junk yards
  - ◆ Monument yards
  - ◆ Hazardous waste facilities
  - ◆ Slaughterhouses
  - ◆ Waste incinerators
  - ◆ Heavy industrial uses
- 3.a.5.* Live/work development should be permitted as a conditional use in the Grant Avenue Industrial Area. Proposals for

live/work development should only be approved if developments are sited so that they minimize the impacts on the surrounding Industrial, Research and Development/Office uses in the area. Proposals should also seek to locate live/work units on the edges of the industrial area near the wetlands or creek amenities.

- 3.a.6. New uses on commercially designated parcels that provide an amenity to Bay Trail users shall be encouraged. Such uses may include restaurants, cafes and sporting goods rental shops.
- 3.a.7. Eight parcels in the Grant Avenue Industrial Area are under the jurisdiction of the City of San Leandro but are accessed only through the Eden Area. The County shall work with the City of San Leandro to ensure that future land uses reflect the County's vision for the Grant Avenue Industrial Area.
- 3.a.8. The County should consider selling County-owned parcels that were purchased for proposed Route 61. If parcels are sold, revenues should be used to create improvements to the Grant Avenue Industrial Area.
- 3.a.9. An ad-hoc working group, composed of property owners, business owners, San Lorenzo Village Homes Association members, San Leandro City staff and local residents, should be formed to guide the improvement and future development of the Grant Avenue Industrial Area.

### 3.b. Urban Design

- 3.b.1 The County shall create design guidelines for the Grant Avenue Industrial Area. The design guidelines should focus on improving the urban fabric of the area, improving the streetscape with street trees, sidewalks and other amenities, enhancing access to the San Lorenzo Creek and Bay Trails, specifying landscape

standards, and locating parking and loading facilities to minimize visual impacts.

### 3.c. Transportation and Infrastructure

- 3.c.1. The County shall continue to explore alternative routes for accessing the Grant Avenue area as a means of reducing the impacts of traffic on nearby residential areas.
- 3.c.2. A streetscape improvement plan should be developed for Grant Avenue between Washington Boulevard and its western terminus at the Oro Loma Wastewater Treatment Plant. The streetscape plan shall focus on measures that reduce noise and air pollution from trucks accessing the Grant Avenue Industrial Area and improve the scenic quality of the roadway. Multi-modal amenities should also be addressed including pedestrian, bicycle and transit facilities.
- 3.c.3. Direct and safe pedestrian and bicycle connections should be developed between the Eden Area and the San Lorenzo Creek and Bay Trails. These connections may be either on Grant Avenue or through adjacent residential areas.
- 3.c.4. Significant new development projects shall be required to pay for upgrades to the wastewater treatment system to ensure that wastewater capacity at the Oro Loma water treatment plant is sufficient to meet the demands of continued growth.
- 3.c.5. The County shall explore traffic-calming measures on Grant Avenue between Washington Boulevard and the western terminus of Oro Loma Wastewater Treatment Plant. The measures should improve safety without significantly impacting traffic flow.

### 3.d. Environmental Impacts of Development

- 3.d.1. New development in the Grant Avenue Industrial Area shall incorporate appropriate noise buffers to minimize impacts on adjacent residential uses.
- 3.d.2. The County shall discourage new industrial uses that cause a substantial increase in environmental impacts on surrounding residential areas including substantially increased truck traffic, increased noise or air pollution from manufacturing operations, and visual intrusions. New uses shall be required to prove that no such impact exists prior to project approval.
- 3.d.3. The County shall work to protect existing natural and sensitive environments in and around the Grant Avenue Industrial Area, including wetlands.

### 3.e. Bay Trail

- 3.e.1. New development should capitalize on access and proximity to the San Lorenzo Creek and Bay Trail facilities. Development that enhances access and the visual appearance to the recreation resource is encouraged.
- 3.e.2. The County shall work with the East Bay Regional Parks District to enhance access to the Bay Trail. Improvements may include additional signage, expanded parking facilities, and pedestrian amenities such as benches, trash cans, and restrooms.

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
LAND USE ELEMENT

## 4 CIRCULATION ELEMENT

The purpose of the Circulation Element is to establish goals, policies and actions to regulate and improve the Eden Area's transportation systems. This Element balances the need to move people and goods by multiple transportation modes and routes with the overall desire to maintain the Eden Area as a safe, attractive community with walkable neighborhoods and vibrant retail districts. The transportation corridors of the Eden Area must accommodate development planned for the area, minimize environmental degradation, and complement regional transportation and land use plans. The Circulation Element is also correlated with the Land Use Element to ensure that existing and new uses are adequately served by transportation systems.

As required by Government Code Section 65302(b), this Element contains information on the general location and extent of existing and proposed major thoroughfares, transportation routes and terminals. State law also requires that a Circulation Element contain data and policies related to water, sewage and storm drainage, and other public utilities. These components are presented in the Public Facilities and Services Element.

This Element is divided into four sections:

- ◆ **Background.** Provides information on the existing circulation network as well as the traffic operation and Level of Service of that network in the Eden Area.
- ◆ **Roadway Classifications.** Describes the roadway classifications and standards that regulate the network.
- ◆ **Changes to the Circulation Network.** Describes changes to the circulation network.
- ◆ **Goals, Policies and Actions.** Provides guidance to the County related to decisions impacting the circulation network.



*Pedestrian and bicycle path*

### *A. Background*

Integrated planning for land use and transportation is vitally important to ensure that people have efficient and effective choices for travel to their destinations. For many years, the response to traffic congestion or anticipated growth was to add motor vehicle capacity. In turn, these transportation improvements encouraged a land use pattern that required a private automobile for basic mobility. However, circulation is no longer perceived as revolving strictly around motorized transportation in individual cars. It also includes a renewed emphasis on walking, cycling and public transit, often called “alternative modes.” Another term for these types of transport would be “sustainable modes,” since they use fewer resources, take up less space, cause less pollution and have lower private costs to operate than automobiles. The cost to the public is also lower when effective sustainable modes are available because of the costs incurred to the public for road construction and maintenance, congestion and parking, and air and water pollution.

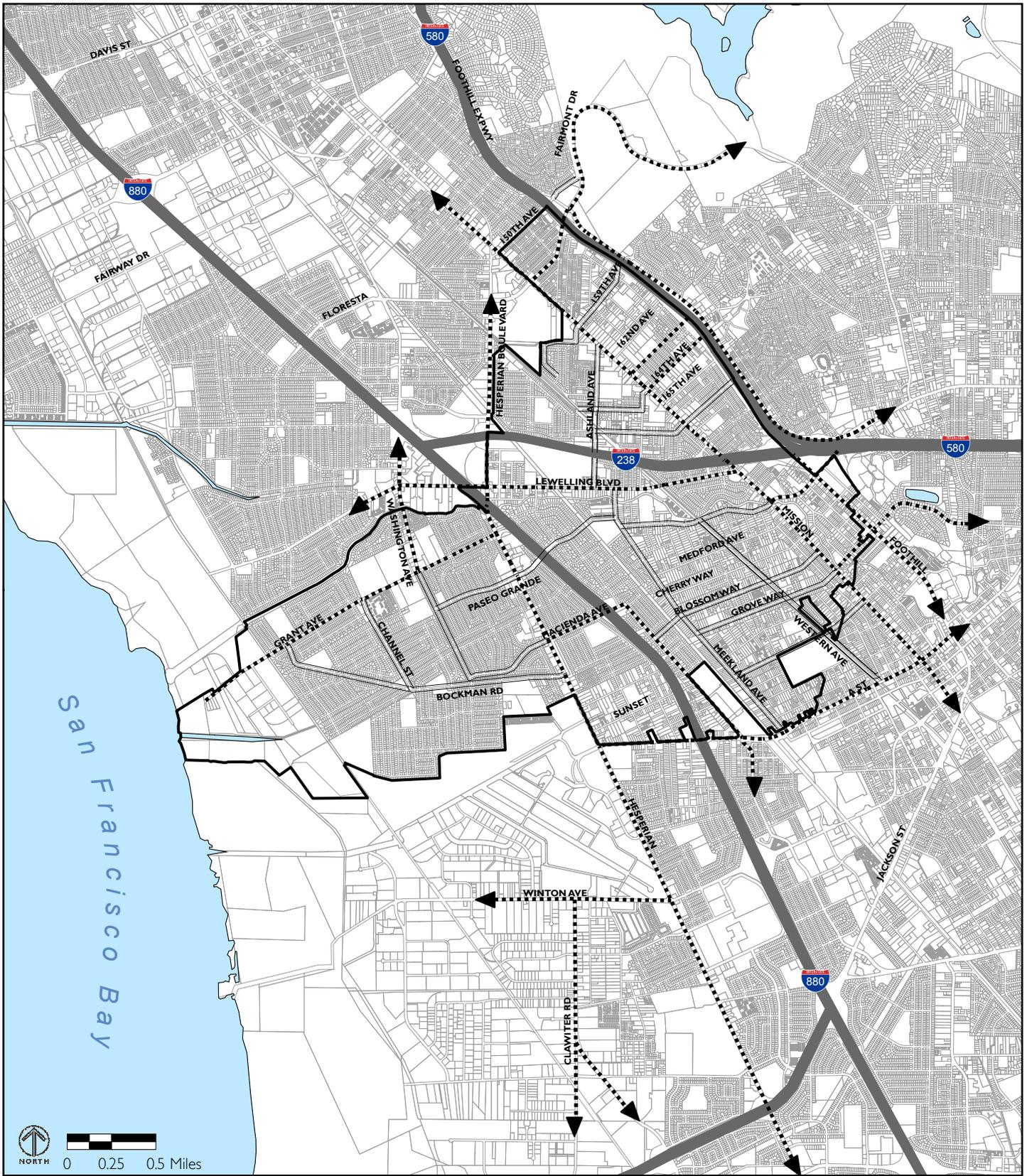
### **1. Circulation Network**

The circulation network is the accumulation of the roadways, railroads, transit and trail systems, including bikeways that form an integrated system to move people and goods within and through the Eden Area.

#### **a. Roadways**

Descriptions of the freeways, arterials, collectors and local streets are provided below, along with a discussion of key issues pertaining to the operation of those roadways. With the exception of limited-access freeways, the roadway network accommodates pedestrian and bicycle travel in addition to motor vehicles.

Each street serves a different function in the system of vehicular movement. Freeways serve regional traffic, arterial streets serve area-wide travel needs, collector streets serve the needs of individual neighborhoods, and local streets provide access to private properties. Figure 4-1 shows the roadway network within the Eden Area.



**FIGURE 4-1**

-  Freeway
-  Arterial
-  Collector
-  Study Area Boundary

**ROADWAY NETWORK**

**COUNTY OF ALAMEDA**  
EDEN AREA GENERAL PLAN

*i. Freeways*

Freeways are high-speed, high-capacity transportation facilities serving regional and countywide travel. These limited access facilities provide for relatively long trips between major land use generators. The Eden Area is located at the confluence of three regional freeways:

- ◆ **Interstate 880** is a six- to eight-lane freeway running north and south between the San Francisco-Oakland Bay Bridge and San Jose. The freeway passes through San Lorenzo and Hayward Acres in the Eden Area. There is a high volume of truck traffic on Interstate 880.
- ◆ **Interstate 580** is an eight- to ten-lane freeway that runs north and south from the San Francisco-Oakland Bay Bridge, traveling through the Eden Area in Ashland, before turning east to Castro Valley, Livermore and the Central Valley.
- ◆ **Interstate 238** is a four-lane freeway that connects Interstate 580 and Interstate 880. Due to restrictions on truck travel on Interstate 580 in Oakland, Interstate 238 carries a relatively high proportion of truck traffic. Caltrans is currently widening Interstate 238 from four to six lanes, with plans for additional capacity for eight lanes in the future. This project is expected to reduce future traffic on Lewelling Boulevard.

*ii. Arterials*

Arterials are relatively high mobility/high capacity roadways that provide access to regional transportation facilities and serve relatively long trips. They also accommodate intra-community travel and connect the rest of the countywide collector system. On-street parking and direct access to properties may be limited. A separated bicycle lane may be provided where feasible. The main arterial roadways that serve the Eden Area are described below:

- ◆ **East 14<sup>th</sup> Street/Mission Boulevard (SR 185)** is a four-lane road that travels north and south through Ashland and Cherryland and operates as a parallel route to Interstate 880. AC Transit bus service is provided on this arterial. It is one of the primary commercial corridors in the Eden Area.

- ◆ **Hesperian Boulevard** is a six-lane road divided by a landscaped median and high voltage line that runs north-south through the San Lorenzo community. Caltrans has designated Hesperian Boulevard as a reliever route to accommodate excess traffic when Interstate 880 is extremely congested. AC Transit bus service is provided. It is a primary commercial corridor in the Eden Area.
- ◆ **Lewelling Boulevard** is a two- to four-lane road between Hesperian Boulevard and East 14<sup>th</sup> Street/Mission Boulevard. Limited bus service is provided. The corridor includes both commercial and residential uses.
- ◆ **Washington Avenue** is a four-lane road that runs north from Grant Avenue into the southwest section of the City of San Leandro. The corridor is a truck route and has commercial, residential and public uses.
- ◆ **‘A’ Street** is a four-lane, east-west road running east from Hesperian Boulevard on the southern border of the Eden Area between Hayward Acres and the City of Hayward. Only the northern side of the street is in the Eden Area. AC Transit bus service and bicycle lanes are provided. ‘A’ Street has a mix of small-scale commercial and residential uses. A proposed extension of ‘A’ Street by the City of Hayward would provide access to the industrial area near the Hayward Airport.
- ◆ **Grove Way** is a two-lane, east-west road running between Meekland Avenue that crosses East 14<sup>th</sup> Street/Mission Boulevard and continues into East Castro Valley Boulevard. Bus service is not provided on Grove Way within the Eden Area. Grove Way is lined with residential and commercial uses.
- ◆ **Foothill Boulevard** is a two- to four-lane road and travels north-south parallel to Interstate 580. Although the boulevard continues north and south, only the section between 150<sup>th</sup> Avenue and Grove Way lies within the Eden Area. AC Transit bus service is provided along this arterial. The corridor has a mix of commercial and residential uses.
- ◆ **Fairmont Drive** is a four-lane road that runs between Mission Boulevard and Interstate 580 in the Eden Area and east into Castro Valley. AC Tran-



*Hesperian Boulevard*

sit bus service is provided. Fairmont Drive has limited access points and borders public uses on one side and residential uses on the other.

- ◆ **167<sup>th</sup> Avenue** is a two-lane road that runs east-west from East 14<sup>th</sup> Street into Castro Valley.

*iii. Collectors*

Collectors are relatively low-speed/low-volume streets with two lanes that provide for circulation within and between neighborhoods. Separated bicycle lanes are included where feasible. These roads serve relatively short trips and are meant to collect vehicles from local streets and distribute them to the arterial network. The key collector streets serving the Eden Area are:

- ◆ 150th Avenue
- ◆ 164th Avenue/Miramar Avenue
- ◆ Ashland Avenue
- ◆ Blossom Way
- ◆ Bockman Road
- ◆ Depot Road
- ◆ Eden Avenue
- ◆ Grant Avenue
- ◆ Grove Way west of Mission Blvd.
- ◆ Hampton Road
- ◆ Hathaway Avenue/Via Toledo
- ◆ Mattox Road
- ◆ Meekland Avenue
- ◆ Paseo Grande
- ◆ Sunset Boulevard
- ◆ Via Alamos
- ◆ Western Boulevard



*Elevated BART tracks along Western Boulevard*

*iv. Local Streets*

Local streets provide access to individual properties, primarily residences and businesses, and connect to the County's network of arterial and collector streets.

Allowing narrower street rights-of-way for local residential streets would reduce the cost and amount of land needed to complete local streets in the Eden Area that currently lack curbs, gutters and sidewalks. This would also serve to allow for the provision of sidewalks in areas with substandard public right-of-way widths. Additionally, narrower streets have been found to reduce travel speeds, thus helping to “calm” traffic and reduce the negative impacts of traffic in residential areas. Narrow streets are designed to increase safety and beautify residential areas.

Alameda County has a Neighborhood Traffic Calming Program that provides a process for neighborhoods to request the installation of traffic calming devices on local and minor collector streets. These measures include striping, streetscape improvements such as street trees or enhanced pedestrian crossings, bulb-outs, speed humps, roundabouts and partial or full roadway closures.

b. Truck Travel

Trucks provide a significant component of the motor vehicles on the circulation network in the Eden Area. Truck travel is regulated by Alameda County Traffic Ordinance, which restricts routes by which heavy trucks may travel within the Eden Area. Preferred truck routes are shown in Figure 4-2.

There are two key issues regarding truck traffic in the Eden Area. First, a high volume of truck traffic enters the Eden Area from Interstates 880 and 238, due in part to restrictions on truck travel on Interstate 580 in Oakland. This has an impact on truck through-traffic on arterial streets, such as Hesperian Boulevard, Lewelling Boulevard and East 14th Street/Mission Boulevard.

A Caltrans project is currently widening Interstate 238 to six lanes, which will likely alleviate some of the truck traffic into the Eden Area.

The second key issue is truck access to the Grant Avenue Industrial Area, the industrial district located at the western end of Grant Avenue in San Lorenzo.



Traffic accesses this area from Interstate 880 via Grant Avenue through residential neighborhoods. Due to the number of economically vibrant industrial and commercial uses in the Grant Avenue Industrial Area, there is an exceptionally high volume of traffic. Typically, truck traffic on an arterial street constitutes less than five percent of overall traffic. Truck traffic was found to constitute between 27 to 30 percent of the traffic on Grant Avenue during peak hours based upon counts conducted on January 28, 2003. Furthermore, illegal truck parking on residential streets in Cherryland and Ashland impacts safety and quality of life for residents.

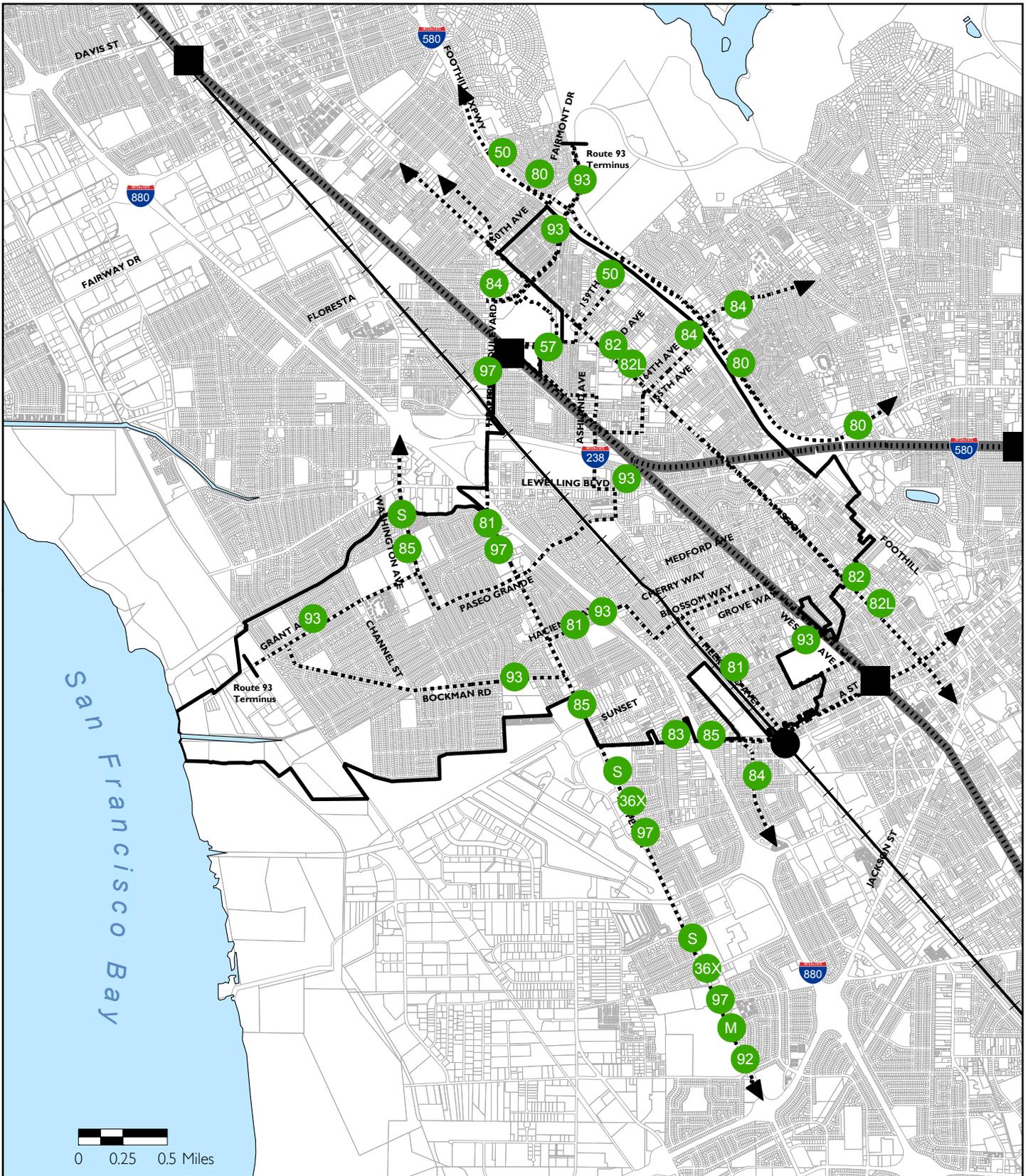
c. Transit

Two key transit agencies provide public transit in the Eden Area: AC Transit and BART. In addition, Amtrak's Capitol Corridor provides train service from San Jose to Sacramento and passes through the Eden Area with a stop in Hayward. The transit lines that provide service to the Eden Area are shown in Figure 4-3.

A number of studies, including AC Transit's Central County Study, the Central Alameda County Community-Based Transportation Plan (CBTP) and MTC's 2001 Lifeline Transportation Network Report, have identified gaps in the transit service provided to the Eden Area. According to the CBTP, problems include limited hours and frequencies, lack of pedestrian and bicycle access to transit stops, the high cost of transportation, lack of information on transportation options, and the feeling of being "unsafe" while traveling. Additionally, MTC's Lifeline Report identified Cherryland as one of the few low-income communities in the Bay Area that was identified with a spatial gap in terms of transit service coverage.<sup>1</sup>

---

<sup>1</sup> A spatial gap is defined as a geographical area with a high concentration of CalWORKs households or an area of key destinations not served at all by public transit. *Community-Based Transportation Plan* for Cherryland, Ashland and South Hayward Final Report. June 2004. Pages ES-1 and 3-2.



- BART Station
- Capitol Corridor Station
- 35 Bus Route Number
- AC Transit Bus Line
- BART Line
- Amtrak Capitol Corridor Line
- Study Area

**FIGURE 4-3**

**EXISTING TRANSIT FACILITIES**

*i. AC Transit*

AC Transit operates a network of bus lines that provide connections within the Eden Area, to and from the BART stations described below, and to adjacent cities. Despite AC Transit’s extensive transit network, the infrequency of service and the limited number of bus routes prevents the Eden Area from being well served by transit. Additionally, pedestrian conditions, such as narrow sidewalks and lack of transit shelters, street trees or buffers from adjacent automobile traffic, can inhibit transit access along existing streets. The most recent AC Transit route information can be found by contacting AC Transit directly.

*ii. Bay Area Rapid Transit (BART)*

BART provides relatively frequent heavy-rail, rapid transit service between East Bay cities, San Francisco, Millbrae and the San Francisco Airport. Intervals between trains are generally less than ten minutes on weekdays and 20 minutes during evening and weekend hours. Most of the Eden Area is located more than one-quarter mile from a BART station thus requiring most users to use another mode of travel to reach the nearest BART station. There are two BART stations bordering the Eden Area: Bayfair Station and Hayward Station. Approximately 4,900 people ride BART daily from Bayfair Station on a typical weekday, while another 4,400 ride from Hayward Station.



*Elevated BART tracks*

Potential improvements to transit circulation affecting the Eden Area are described below:

- ◆ AC Transit is planning to provide bus service along Lewelling Boulevard (via Route 81) and is considering the implementation of an “enhanced bus corridor” on Hesperian Boulevard (that could include signal preemption, improved shelters, “next bus” technology and other measures to increase the speed and efficiency of bus service).
- ◆ BART is studying expansion of service south from Fremont to San Jose, which, if implemented, would provide an additional transportation option for residents of the Eden Area for traveling to and from the South Bay.



*Bayfair BART*

d. Pedestrian Facilities

The pedestrian environment plays a key role in determining the overall livability and general characteristics of any community. In general, a high quality pedestrian environment has sidewalks on both sides of the street that are separated from traffic by a planting strip and/or parked cars. Other desirable attributes include traffic calming features, pedestrian-scale lighting, street trees that shade pedestrians and provide a visual canopy, visible and safe crosswalks, and a consistent urban development pattern that provides visual continuity (i.e., buildings that form a street wall).

The locations that provide the best pedestrian experience in the Eden Area are the older residential neighborhoods in San Lorenzo and Cherryland. These areas generally have tree canopies, consistent building setbacks, relatively narrow streets and speed bumps for slowing traffic.

Other locations in the Eden Area have only the most basic of pedestrian amenities. The major arterials (namely East 14th Street/Mission Boulevard and Hesperian Boulevard) have sidewalks, but there is little or no buffering of the pedestrian environment from the traffic. In places where there is on-street parking, conditions are slightly better for pedestrians. However, drive-way curb-cuts and the large scale of these streets create hazards for pedestrians and reduce the attractiveness of the environment. In some residential areas, there are no sidewalks, curbs or gutters, and pedestrians must walk in the street with traffic.

A number of existing policies and planning efforts within the Eden Area place an emphasis on improving pedestrian circulation, often in conjunction with efforts to protect neighborhood quality of life or enhance the commercial viability of specific areas. These efforts are summarized below.

- ◆ The *East 14<sup>th</sup>/Mission Boulevard Master Plan* includes recommendations for reducing blight and improving pedestrian circulation along the corridor. The County envisions extensive streetscape enhancements, including undergrounding of utilities, a raised median, street trees, new street lighting and pedestrian improvements, such as sidewalk extensions at intersections

(bulb-outs) to reduce pedestrian crossing distances. Additionally, the project will include a Class III (signed) bicycle route geared towards bicycle commuters.

- ◆ The *Lewelling Boulevard Improvement Project* includes improvements to widen the street and make improvements to sidewalks. Currently, Lewelling Boulevard has inadequate facilities for pedestrians and bicyclists, lacks landscaping and has higher than normal collision rates. Phase I of the project (between Hesperian Boulevard and Meekland Avenue) will include four travel lanes, a center median/two-way turn lane and 10-foot wide sidewalks (on-street bicycle lanes are not included). Phase II (between Meekland Avenue and Mission Boulevard) provides for two travel lanes, plus a two-way center turn-lane, on-street parking and five-foot sidewalks. The plan recommends street trees along Lewelling Boulevard.
- ◆ The *Hesperian Corridor Streetscape Master Plan* develops a vision for revitalizing the Hesperian corridor and achieving an inviting streetscape for pedestrians, residents and merchants. Key goals include improved pedestrian and bicycle circulation and increased use of public transit. The plan provides streetscape improvements and traffic calming measures where possible without sacrificing current traffic patterns. Proposed improvements include narrower travel lanes, wider sidewalks, bicycle lanes, street trees and raised medians. Key parking areas would be retained.
- ◆ The *San Lorenzo Village Specific Plan* recommends enhancing the economic viability of the historic core of San Lorenzo as a “main street” environment, including pedestrian and streetscape improvements.
- ◆ The *Community-Based Transportation Plan* for Cherryland, Ashland and South Hayward, completed in June 2004, surveyed residents about concerns relating to transit usage and evaluated potential solutions to the problems identified. Recommended solutions include new sidewalks on 72 blocks in Cherryland and increased lighting in pedestrian areas along transit routes.
- ◆ The *Alameda County Pedestrian Master Plan for Unincorporated Areas* was adopted in 2006. The Plan examines existing conditions, identifies pedes-

trian route networks, conducts a needs assessment, identifies design elements and outlines a strategic implementation plan. This plan also promotes walking as a safe, healthy and attractive alternative to driving.

e. Bicycle Facilities

Bicyclists are permitted to travel on all portions of the roadway network except freeways. There are three types of standard bikeway classifications in California. Each is described below:

- ◆ **Class I Bicycle Paths.** Class I bikeways are completely separated from motor vehicle traffic, such as an off-street path along a river or railroad corridor. Class I bikeways are generally 8 to 12 feet wide.
- ◆ **Class II Bicycle Lanes.** Class II bikeways are located on streets and allow bicyclists to utilize a separate lane of travel, usually 5 feet wide, separated from motor vehicle traffic by a 6-inch white stripe.
- ◆ **Class III Bicycle Routes.** Class III bikeways are designated by signs only. Cyclists share the travel lane with motor vehicle traffic on these routes. Some Class III routes have a wide outer curb lane while others carry low volumes of motor vehicle traffic, making a separate bicycle lane or wide curb lane unnecessary.

Although bicycles are allowed on all roads, designated bikeway facilities are limited to a few key streets in the Eden Area. Key elements of the existing bikeway network are described below and are indicated on Figure 4-4. They are:

- ◆ Class I bicycle path running north from the western terminus Grant Avenue, serving as a segment of the San Francisco Bay Trail providing access north to San Leandro and Oakland.
- ◆ Class II bicycle lanes on Grant Avenue (west of Washington Avenue/Via Alamos) that connect with the San Francisco Bay Trail.
- ◆ Class II bicycle lanes on West 'A' Street.
- ◆ Class III route on Washington Avenue (north of Grant Avenue).

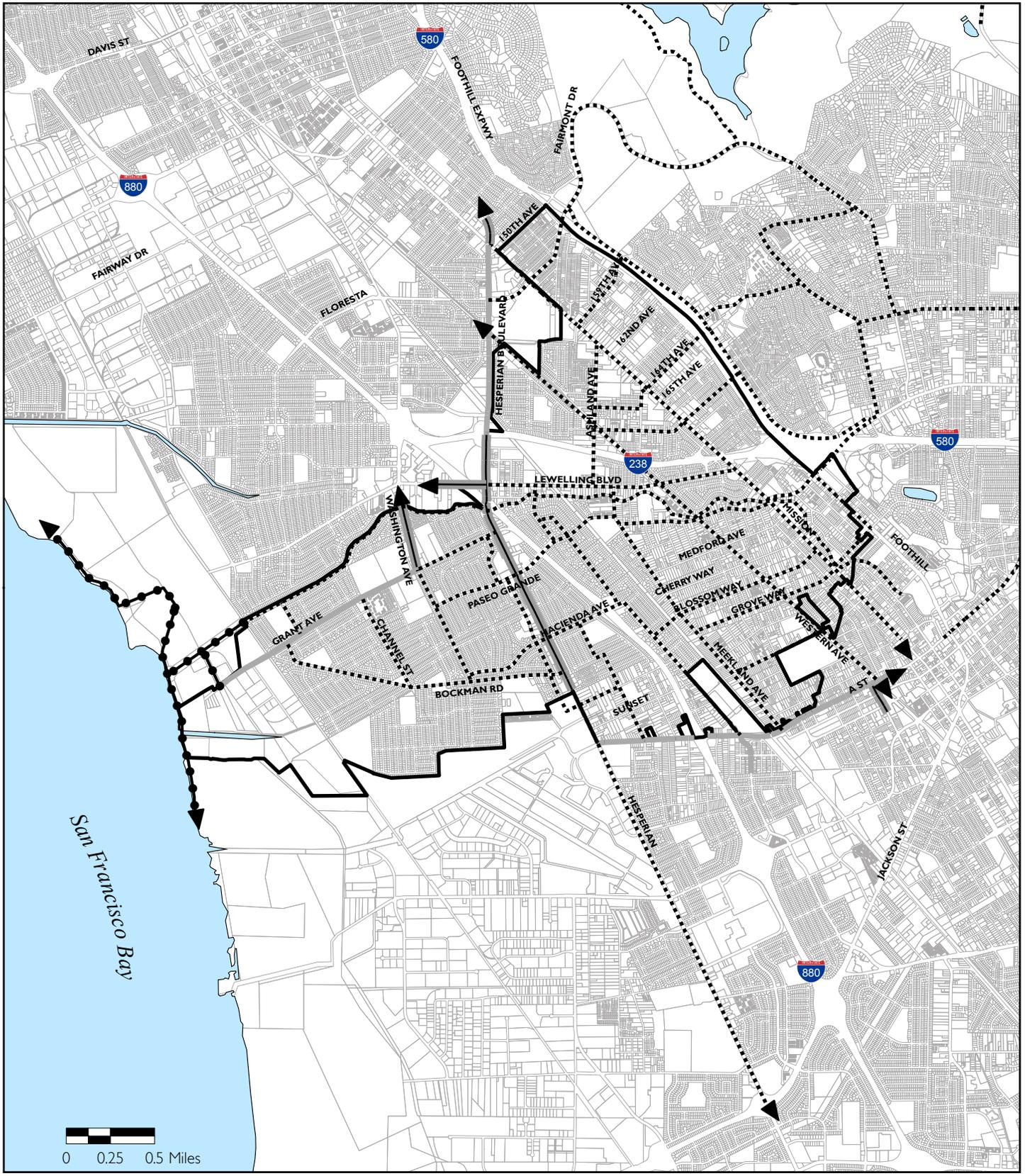
- ◆ Class III route on Hesperian Boulevard (north of 'A' Street) that connects with Class II bicycle lanes on the portion of Hesperian Boulevard in San Leandro.

The *Alameda County Bicycle Master Plan Update for Western Unincorporated Areas* (adopted in 1999) and the *Countywide Bicycle Plan* (adopted in 2001) include recommendations for improving bicycle connections in the Eden Area. The *Bicycle Master Plan for Western Unincorporated Areas* Plan proposes bicycle paths along San Lorenzo Creek and the BART right-of-way, as well as proposes bicycle lanes on East 14th Street/Mission Boulevard, Hesperian Boulevard, Lewelling Boulevard and Meekland Avenue.

More recent corridor plans for East 14th Street/Mission Boulevard and Lewelling Boulevard do not include designated bicycle lanes. The *Countywide Bicycle Plan* makes recommendations for developing regional bicycle routes on major roads such as Foothill Boulevard and the northern portion of East 14<sup>th</sup> Street to make connections with adjacent communities. The routes in these two plans are shown in Figure 4-4. Additionally, the *Community-Based Transportation Plan* for Cherryland, Ashland and South Hayward recommends the installation of bicycle racks in those communities.

Further recommendations have been included in the *Alameda County Bicycle Master Plan Update for the Unincorporated Areas*, which was completed in 2006. The plan addresses four goals:

- ◆ **Network Provision and Maintenance.** Create and maintain a comprehensive system of bicycle facilities in the local and subregional transportation network in order to establish a balanced multi-modal transportation system.
- ◆ **Network Funding and Prioritization.** Maximize use of public and private resources in establishing a bicycle network.
- ◆ **Network Integration.** Promote the use of transit, ridesharing, bicycling, and walking through land use and transportation planning.



\* Proposed by the Alameda County Bicycle Master Plan Update for the Western Unincorporated Areas (1999) or Alameda Countywide Bicycle Plan (2001)

- Existing Route
- Existing Lane
- Existing Path
- Proposed Route, Lane or Path
- Study Area

**FIGURE 4-4**

**EXISTING AND PROPOSED BICYCLE NETWORK**

- ◆ **Encouragement.** Encourage bicycling and other transportation alternatives as a means to reduce traffic congestion.

Additionally, the plan will assess current conditions to identify priorities for planning bicycle transportation improvement projects. Emerging routes will also be identified for integrating continuous bicycle commuter and recreational trips to promote bicycling as an effective alternative mode of transportation.

## 2. Traffic Operations

In the Eden Area, as in most communities with similar density and development patterns, most travel beyond a few blocks occurs in motorized vehicles, primarily the automobile. This section describes traffic volumes and operating conditions for motor vehicles at key roadway locations in the Eden Area.

### a. Traffic Volumes

Twenty-four hour counts of traffic volumes were conducted at specific locations on eleven roadway study segments on January 29, 2003. They are:

- ◆ 167th Street, just east of Foothill Boulevard, in or immediately outside of the Eden Area
- ◆ Blossom Way, between Meekland and Haviland Avenues
- ◆ Bockman Road, just south of Grant Avenue
- ◆ Grove Way, between Birch and Locust Streets
- ◆ Hampton Road, between Lowell and Standish Avenues
- ◆ Hathaway Avenue, between Ardis Street and Loutte Court
- ◆ Lewelling Boulevard, between Ashland Avenue and Via Granda
- ◆ Meekland Avenue, between Alden Road and Medford Avenue
- ◆ Miramar Avenue, just east of Foothill Boulevard
- ◆ Via Alamos, between Grant Avenue and Paseo Grande
- ◆ Western Boulevard, just south of Sunset Boulevard

These roadway segments generally experienced a daily traffic volume appropriate for their roadway designation with a few exceptions. The majority of roadways did not experience excessive traffic congestion. The two exceptions



*Pedestrian amenities*

were Lewelling Boulevard and Meekland Avenue, which experienced a higher volume of traffic relative to roadway capacity indicating potentially unacceptable operating conditions. Since freeways serving the Eden Area are at or nearing capacity, several of these roadways could potentially experience increased traffic diverting from regional freeways in the future. Additionally, the *Eden Area Redevelopment Plan Draft Environmental Impact Report* identified unacceptable operating conditions on segments of Foothill Boulevard, Grove Way, Center Street, 'A' Street, Hesperian Boulevard, Grant Avenue (from Nielson Avenue to Hesperian Boulevard) and 150<sup>th</sup> Avenue.

Table 4-1 presents daily traffic volumes for selected roadways based on the traffic counts described above and on previous studies.

b. Intersection Level of Service

The pace at which traffic moves, or does not move, is a key indicator of how well the circulation network is functioning for vehicular traffic. It is standard practice to measure the performance of an intersection in terms of Level of Service (LOS), which is a system by which the level of congestion can be given a letter grade based on vehicle delay. As explained in Table 4-2, LOS A indicates a facility with little congestion and LOS F indicates a highly congested facility. The proper LOS calculation methodology for intersections is dependent on the type of intersection control device (i.e. whether the intersection is controlled by traffic signals, stop signs or roundabouts).

i. *Level of Service Standards*

LOS standards are commonly adopted by local jurisdictions to define acceptable operating conditions, generally for intersections during peak travel periods. Future decisions regarding proposed development or roadway modifications are then based upon maintaining traffic operations that satisfy the adopted standard.

**COUNTY OF ALAMEDA**  
**EDEN AREA GENERAL PLAN**  
 CIRCULATION ELEMENT

TABLE 4-1 **DAILY TRAFFIC VOLUMES**

Roadway	Daily Traffic Volume
Interstate 880	243,000
Interstate 580	194,000
Interstate 238	118,000
East 14 <sup>th</sup> Street/Mission Boulevard	27,000
Grant Avenue	9,500 to 17,900 <sup>b</sup>
Hesperian Boulevard	51,000
Lewelling Boulevard <sup>a</sup>	19,000
'A' Street	31,000
Grove Way <sup>a</sup>	8,200
Foothill Drive	19,000
Bockman Road <sup>a</sup>	2,100
Washington Avenue <sup>a</sup>	29,000
Western Boulevard <sup>a</sup>	4,700
Ashland Avenue	5,800 to 12,800 <sup>c</sup>
Meekland Avenue <sup>a</sup>	11,900
Blossom Way <sup>a</sup>	5,400
Sunset Boulevard	2,600
Hampton Road <sup>a</sup>	7,200
Depot Road	6,000
Eden Avenue	1,500
150 <sup>th</sup> Avenue	17,000

<sup>a</sup> Fehr & Peers January 29, 2003.

<sup>b</sup> 9,500 was measured west of the Union Pacific Railroad tracks and 17,900 was measured at Nielson Road.

<sup>c</sup> 5,800 was measured on the segment from East 14th Street to Galway Drive; 12,800 was measured from Galway Drive to Año Avenue.

Sources: *Eden Area Redevelopment Plan Draft EIR*, 2002 and traffic counts conducted by Fehr & Peers January 28, 2003.

TABLE 4-2 INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Definition of Traffic Conditions	Average Control Delay Per Vehicle (in Seconds)
<b>Signalized Intersections</b>		
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0
<b>Unsignalized Intersections</b>		
A	Little or no delay	≤ 10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Note: The term V/C refers to “volume-to-capacity”.

Source: Transportation Research Board, *Highway Capacity Manual*, 2000.

The Alameda Congestion Management Agency (CMA) has a *Congestion Management Program* (CMP) that includes a Capital Improvements Program aimed at maintaining or improving the operation of the multi-modal transportation system and requires development projects to contribute towards transportation impact mitigation. The CMP includes operating standards for key roads and freeways in the Eden Area: Foothill Boulevard, Center Street, “A” Street, Hesperian Boulevard, Interstate 880, Interstate 580 and Interstate 238. The LOS standard on CMP roadways is LOS E or better.

For the majority of roadways within the Eden Area that are not part of the CMP network, the current operating standard adopted by the County is LOS D or better during peak travel periods and LOS C during non-peak periods. In locations where the level of service is exceeded, current County policy requires that improvements, consistent with other plan policies, should be undertaken.

A key deficiency of current LOS standards is that they focus on the movement of motor vehicles and do not take into account operating conditions for transit, pedestrians or bicyclists.

*ii. Study Intersections*

The LOS at nine study intersections was evaluated during the AM and PM peak hours based on peak hour traffic and turning movements conducted on January 28, 2003. The results are shown in Table 4-3. The study shows that LOS tends to be lower and delays longer at the study intersections in the afternoon (PM) peak hours than during the morning (AM) commute hours.

The intersections of Mission Boulevard/Blossom Way and Grant Avenue/Washington Avenue have LOS E or F conditions during the PM peak hour and exceed the County’s LOS policy.

**COUNTY OF ALAMEDA**  
**EDEN AREA GENERAL PLAN**  
 CIRCULATION ELEMENT

TABLE 4-3 **STUDY INTERSECTIONS: PEAK HOUR LEVEL OF SERVICE<sup>a</sup>**

Intersection	Delay/Vehicle		Delay/Vehicle	
	AM	(seconds)	PM	(seconds)
East 14 <sup>th</sup> Street/ Ashland Avenue	B	18.9	C	23.3
East 14 <sup>th</sup> Street / 164 <sup>th</sup> Avenue	B	15.5	C	22.0
East 14 <sup>th</sup> Street / Lewelling Boulevard	B	17.8	C	23.1
Mission Boulevard/ Lewelling Boulevard	B	11.4	C	23.8
Mission Boulevard/ Hampton Road/ Mattox Road	C	23.0	D	35.8
Mission Boulevard/ Blossom Way	D <sup>b</sup>	Overall: 1.5 (Approach with highest delay was 32.4 seconds)	F	Overall: 4.7 (Approach with highest delay was 118 seconds)
Mission Boulevard/ Grove Way	D	36.2	D	40.5
Grant Avenue/ Washington Avenue	D	44.8	E	58.7
Grant Avenue/ Bockman Road	B	10.9	B	11.3

<sup>a</sup> Turning movement diagrams for each intersection are provided in the *Eden Area General Plan Existing Conditions Report*, Appendix C.

<sup>b</sup> LOS is determined based on the intersection approach experiencing the highest delay. Although most vehicles traveling through this intersection experience little or no delay, the side street approach from Blossom Way experiences a level of delay that constitutes LOS D during the AM peak hour and LOS F during the PM peak hour.

Source: Traffic counts conducted by Fehr & Peers January 29, 2003.

### *B. Roadway Classifications*

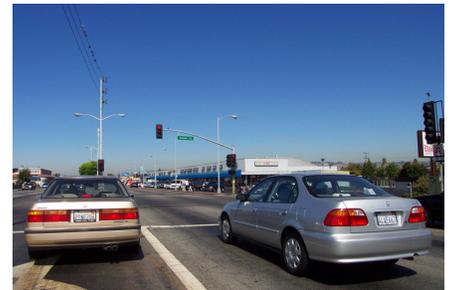
Traffic engineers and planners usually define the roadway system as a functional hierarchy of street classifications. The intent is to develop standards for each route based on its function within the roadway network. As noted in the background section, most functional street classification systems consist of four basic types: freeways, arterials, collectors and local streets.

The functional classification system recognizes that individual roadways do not act independently of one another but form a network that works together to serve travel needs on a local, area-wide and regional level. Standards for the design or operation of each street within a roadway network are typically derived from its functional classification. These standards affect design requirements for lane width, intersection and signal spacing, travel speed, volume and local access (such as whether or not driveway access or on-street parking is allowed).

In the past, functional classification systems have focused primarily on the movement of vehicles. However, there is a growing recognition that additional factors need to be taken into account. For instance, it is now accepted that provisions should be included for pedestrian, bicycle and transit amenities within each classification. There are two exceptions to this new practice: freeways and local streets. Freeways should not have provisions for bicycles because they serve only motor vehicle traffic. Local streets do not need provisions for transit because they are too small. Additionally, within each classification, the appropriate design of a particular street should be determined by the context of the street (i.e., the surrounding land uses). Therefore, the appropriate design of an arterial street within a residential area would be different than the design for an arterial street within a commercial area.

In order to better accommodate all types of traffic and design streets appropriate to their context, the roadway classifications within the Eden Area shall be as defined below:

- ◆ **Freeways** are intended solely to carry motor vehicle traffic and have controlled access, no parking and grade-separated interchanges. Where free-



*Hesperian Boulevard*

way ramps intersect with County roads, appropriate provisions should be made for pedestrians, bicyclists and transit.

- ◆ **Arterial** streets are either relatively high speed/high capacity roads that provide access to regional transportation facilities and serve relatively long trips, or medium speed/medium capacity roads for intra-community travel, as well as access to the rest of the county-wide arterial system. Arterials serve motor vehicle, transit, bicycle and pedestrian travel, and should include two to six lanes for motor vehicle traffic as well as bicycle lanes, transit shelters, and wide sidewalks with street trees whenever feasible. Controlled pedestrian crossings should be provided at appropriate intervals. Primary access to arterials should be via collector roads and local streets. Curb-cuts should be limited, particularly where pedestrian safety could be affected. On-street parking is discouraged except where the provision of on-street parking may complement adjoining land uses and provide a buffer for pedestrians traveling on adjacent sidewalks.

Four arterial roads in the Eden Area (East 14th Street/Mission Boulevard, Hesperian Boulevard, 'A' Street, and Lewelling Boulevard) are identified as Corridors in the Land Use Element. Corridors are envisioned to be pedestrian-oriented environments that contain a mix of retail, office and other commercial uses. The design of Corridors should balance the needs of automobiles, trucks, transit, bicycles and pedestrians and respect the intensity of adjacent development.

- ◆ **Collector** streets are relatively low-speed/low volume streets. These streets are typically two lanes wide and provide circulation within and between neighborhoods. Collector streets serve relatively short trips and are meant to collect trips from local streets and distribute them to the arterial network. On-street parking and direct driveway access is generally allowed, although curb-cuts that affect pedestrian circulation should be limited. Collector streets serve motor vehicle, transit, bicycle and pedestrian travel and should include sidewalks and bicycle lanes whenever feasible.
- ◆ **Local** streets are low speed/low volume roadways that provide direct access to abutting land uses. The width of local streets should be between 20

to 36 feet for residential and commercial local streets, and up to 40 feet for industrial local streets. Driveways to individual units and on-street parking are allowed. Local streets serve motor vehicle, bicycle and pedestrian travel. Sidewalks should be provided on all local streets.

*C. Goals, Policies and Actions*

**Goal CIR-1 Provide attractive streets designed to serve a broad spectrum of land use patterns and travel modes.**

Policies

- P1. The County should develop functional classification and street design standards that allow for variations in street width based on the function of the facility and the land use context. These “context-sensitive” roadway designs should have the following aims:
- ◆ Use design features to make the corridor a center of community activity.
  - ◆ Create an aesthetically attractive streetscape and safe pedestrian environment.
  - ◆ Increase bicycle safety by following accepted standards or by designing a bicycle circulation system.
  - ◆ Balance the needs of autos, pedestrians, trucks, transit and bicyclists. The extent to which each mode is emphasized should vary according to the function of the roadway and the adjacent existing and future land uses.
  - ◆ Decrease the impacts of roadways on surrounding uses by slowing speeds, reducing noise impacts and emphasizing pedestrian travel.

- P2. Whenever possible, roadway modifications should include accommodations for bicycle and pedestrian travel.
- P3. Land use concepts shall be promoted that minimize automobile trips and encourage walking, bicycling and transit use.
- P4. The County should improve transportation infrastructure, such as roadway widening, intersection improvements and bicycle and pedestrian facilities at a rate that keeps pace with growth.
- P5. New developments shall mitigate the full impacts of their projects on the transportation system. A variety of mitigation measures should be considered, including impact fees, street improvements and transportation demand management (TDM) measures.
- P6. New developments shall incorporate design features that encourage use of alternative modes such as transit, bicycling and walking.
- P7. New traffic control device technologies should be considered in order to maximize efficiency of auto, transit, bicycle and pedestrian traffic.

Actions

- A1. Update the functional street classifications and street design standards for the Eden Area.
- A2. Adopt development review standards that require provisions of amenities for multiple travel modes and ensure consistency with adopted bicycle, pedestrian and transit plans.

- A3. Work with Bay Area RIDES to coordinate and promote rideshare efforts, such as for County employees and other large employers in the Eden Area.
- A4. Evaluate public and private development projects for consistency with adopted transit, bicycle and pedestrian master plans.
- A5. Review and revise capital improvement programs to prioritize multi-modal projects over roadway improvements.
- A6. Review and revise the County's impact fees to ensure that new development pays a fair share of infrastructure and street improvement costs.
- A7. Develop a local TDM program to identify realistic target reductions in automobile travel and desirable mode splits. Work with employers in the Eden Area to ensure that these targets are met.

<b>Goal CIR-2</b> <b>Adopt and enforce level of service (LOS) standards that provide a high level of mobility and accessibility for all travel modes.</b>
---

Policies

- P1. An LOS of E or better shall be applied to Congestion Management Program (CMP) Roadways: Foothill Boulevard, Center Street, "A" Street, Hesperian Boulevard, Interstate 880, Interstate 580 and Interstate 238.
- P2. An LOS of D or better shall be applied to all non-CMP roadways during peak travel periods.

- P3. The County may allow individual locations to fall below the LOS standards in instances where the construction of physical improvements would be infeasible, prohibitively expensive, significantly affect adjacent properties or the environment, have a significant adverse impact on the character of the Eden Area, or where the lower standard results from significant physical improvements to transit, bicycle or pedestrian facilities.
- P4. Intersections may be permitted to fall below their adopted LOS standards on a temporary basis when the improvements necessary to preserve the LOS standard are in the process of construction or have been designed and funded but not yet constructed.

Actions

- A1. Develop multi-modal LOS standards that consider the movement of transit vehicles and non-motorized travel. The revised standards should also accommodate higher levels of congestion for some streets such as in areas where pedestrian or transit travel may be prioritized (e.g., Districts identified and described in the Land Use Element).
- A2. Maintain an up-to-date record of intersections exempted from the County's LOS standards.

<b>Goal CIR-3 Provide for efficient motor vehicle circulation within the Eden Area.</b>
---

Policies

- P1. The County should support regional efforts to improve the freeway and arterial system as well as transit facilities, routes, and frequency within and near the Eden Area.
- P2. Where traffic congestion is an existing or imminent problem, priority should be given to those measures that will provide for more efficient use of existing streets and highways, including the use, where appropriate, of high-occupancy vehicle lanes, traffic signal synchronization, and restrictions on turning during peak travel periods.
- P3. The County should maintain street connectivity in the Eden Area in order to disperse traffic on multiple streets and ensure adequate response time for emergency services.
- P4. The County shall ensure that projects implemented as part of the Neighborhood Traffic Calming Program maintain street connectivity and provide appropriate emergency vehicle access.

Actions

- A1. Revise the *Alameda County Public Works Design Guidelines* to better accommodate pedestrian, bicycle and transit traffic; require street designs that are appropriate to the context of surrounding land uses; and ensure consistency with the Roadway Classification specifications in this General Plan.
- A2. Update the Capital Improvement Program to include one of the following two improvement options at the following intersections:
  - ◆ Option A: Realign the Grant/Washington/Via Alami-tos intersection to allow east/west movements (on

Grant Avenue) without split-phase operations. (Currently, eastbound and westbound movements have separate signal phases.) The intersection would operate acceptably at LOS D with this improvement. Improving the intersection alignment would also be desirable to enhance pedestrian circulation. The public prefers Option A.

- ◆ Option B: Add a second southbound (heading towards Via Alamos) right-turn lane on Washington Avenue, approaching the Grant/Washington/Via Alamos intersection. The intersection would operate at LOS E with this mitigation, which would be an acceptable LOS for intersections located near schools based upon LOS criteria that would be adopted as part of the proposed General Plan. However, provision of a second southbound right-turn lane could result in undesirable crossing conditions for pedestrians.

- A3. Update the Capital Improvement Program to plan for signalization of the Mission/Blossom intersection. Following signalization, this intersection would operate acceptably at LOS D during the PM peak hour.

<b>Goal CIR-4 Provide access and circulation along Corridors and in Districts while respecting the intensity of adjacent development.</b>
---

Policies

- P1. Corridors identified in the Land Use Element (East. 14<sup>th</sup>/Mission Boulevard, Hesperian Boulevard, West ‘A’ Street, Lewelling Boulevard, and Meekland Avenue) shall emphasize pedestrian and transit access to adjacent land uses.

- P2. At intersections located in and immediately adjacent to Districts, pedestrian and transit circulation should take precedence over the movement of motor vehicles. The Districts identified and described in the Land Use Element are:
- ◆ San Lorenzo Village Center.
  - ◆ East 14th Street at Ashland Avenue.
  - ◆ Mission Boulevard at Mattox Road.
  - ◆ The Four Corners area (the intersection of Hesperian Boulevard and Lewelling Boulevard).
  - ◆ The commercial uses on Bockman Road east of Channel Road.
  - ◆ The intersection of Hesperian Boulevard and West 'A' Street.
- P3. On-street parking should be allowed, where appropriate, along Corridors and in Districts to provide access to adjacent land uses and to serve as a buffer for pedestrians.
- P4. The County may create shared parking districts in order to centralize and reduce the total amount of land allocated to parking in Districts and Corridors.
- P5. Shared parking arrangements should be encouraged in Districts and along Corridors.
- P6. Wide sidewalks shall be provided in Districts and along Corridors. Where it is not possible to provide wide sidewalks continuously along a Corridor, sidewalks shall be widened at their most congested locations such as in Districts located along corridors and at bus stops.
- P7. Public spaces should be designed along sidewalks on Corridors and in Districts. Sidewalks provide opportunities for

people to interact on the street, and space for this interaction should be provided to the greatest extent feasible.

Actions

- A1. Review and update parking requirements in the zoning code to include a reduction in the required number of spaces, to allow compact parking spaces, and to include provisions for shared parking in Corridors and Districts where such parking would not impact neighborhoods.
- A2. Implement and pursue funding for the *East 14<sup>th</sup>/Mission Boulevard Master Plan*, the *Lewelling Boulevard Improvement Project*, the *Hesperian Corridor Streetscape Master Plan*, and the *San Lorenzo Village Master Plan*.
- A3. Reduce posted travel speeds in Districts to a maximum of 30 miles per hour.

<b>Goal CIR-5</b> <b>Ensure that public transit is a viable alternative to driving in the Eden Area.</b>
--

Policies

- P1. Encourage AC Transit and BART to provide transit service throughout the Eden Area, preferably within one-quarter mile of all residences, businesses, health care, parks and service facilities.
- P2. The County should work with AC Transit and BART to ensure that the frequency and duration (hours of operation) of transit service is adequate and that overall travel time and convenience of travel by public transit is comparable to travel by other modes.

- P3. The County shall support efforts to enhance regional transit service serving the Eden Area, such as the extension of BART to San Jose and enhanced bus service on East 14th Street/Mission Boulevard and Hesperian Boulevard.
- P4. The County shall promote Transit-Oriented Development (TOD) opportunities and pursue available grant funding from local, state and federal sources to fund potential projects.

Actions

- A1. Work with AC Transit to secure funding for enhanced bus service in the Eden Area, including increased frequency and duration of service on existing bus lines.
- A2. Work with Amtrak to expand Capitol Corridor service and study additional station locations, including potential station locations in the Eden Area.
- A3. Work with BART and the City of San Leandro to develop a station area plan to evaluate the potential for transit-oriented development in the parking lot adjacent to the Bayfair BART Station.

<b>Goal CIR-6 Complete and enhance the pedestrian circulation network serving the Eden Area.</b>
--

Policies

- P1. Walking shall be considered an essential and integral part of the County's circulation network.

- P2. An uninterrupted pedestrian network of sidewalks, with continuous sidewalks along both sides of streets, should be ensured. An interconnected pedestrian network is essential to a functional and safe walking environment.
- P3. The provision of curbs, gutters and sidewalks on uncompleted street segments in the Eden Area shall be required whenever possible. The County should prioritize sidewalk locations in the following order: near schools and parks; on residential streets without sidewalks; in locations with a high level of pedestrian collisions; in areas that can close small, existing gaps in the sidewalk network; near special needs housing; in locations with high pedestrian volumes; on primary transportation corridors; near shopping and retail areas; and within a quarter-mile of BART and other transit facilities.
- P4. Ample crossing opportunities shall be provided, especially in Districts and along Corridors. In addition to marked crosswalks at all intersections, mid-block crossings and adequately timed signals should be provided at intersections which are too widely spaced for reasonable pedestrian access.
- P5. On street frontages that do not currently include sidewalks, the installation of sidewalks shall be a requirement for all new development.
- P6. New development projects shall be required to provide sidewalks and direct pedestrian connections to adjacent neighborhood streets.
- P7. Street trees, planting strips, bollards and other physical improvements that buffer pedestrians from traffic should be

provided on all streets with existing or potential future high volumes of vehicular and pedestrian activity.

- P8. Direct and safe pedestrian access routes shall be designed between development and transit facilities, including the Bayfair BART station, the Amtrak Capitol Corridor station in Hayward and major bus transit routes. This encourages the use of public transportation.
- P9. The County's pedestrian system shall have a high level of connectivity, especially between residences and common local destinations, such as schools, shopping and parks.
- P10. The County shall investigate measures to enhance access and circulation as required by the Americans with Disabilities Act.
- P11. The County shall promote Transit-Oriented Development (TOD) opportunities and pursue available grant funding from local, State and federal sources to fund potential projects.

#### Actions

- A1. Regularly update the inventory of sidewalk deficiencies in the Eden Area.
- A2. Complete and adopt the *Pedestrian Master Plan* for the Eden Area.
- A3. Update the County's street standards to reflect the pedestrian policies listed above and to be consistent with the *Alameda County Pedestrian Master Plan for Unincorporated Areas*.

- A4. Investigate available grant funding for sidewalk improvement projects.

**Goal CIR-7 Promote bicycling as a form of transportation within the Eden Area.**

Policies

- P1. Bicycling shall be considered an essential and integral part of the County's circulation network.
- P2. The County shall develop and maintain a bikeway system for the Eden Area that effectively serves residential areas, employment centers, schools, parks and transit stations.
- P3. Safe and direct bicycle facilities should be constructed to provide access from residential neighborhoods to the Bayfair and Hayward BART stations and the Amtrak Capitol Corridor station south of the Eden Area.
- P4. The County shall support efforts to develop a regional bikeway network.
- P5. When arterial or collector streets are resurfaced, bicycle lanes shall be installed whenever feasible.
- P6. New commercial, office and Research & Development projects and multi-family residential development projects shall provide safe and secure covered bicycle parking or storage facilities.
- P7. The County shall pursue development of safe and efficient Class I bicycle paths within the Union Pacific Railroad Oakland Subdivision right-of-way along Western Boulevard.

Actions

- A1. Update the *Bicycle Master Plan for the Western Unincorporated Areas* upon adoption of the Eden Area General Plan.
- A2. Adopt a bicycle parking ordinance as part of the Zoning Ordinance.
- A3. Support efforts to convert the Union Pacific Railroad Oakland Subdivision right-of-way into a bicycle/pedestrian path. Work with the Cities of Hayward and San Leandro to implement these efforts.

<p><b>Goal CIR-8</b> Provide for adequate truck circulation to allow for the efficient transport of goods within the Eden Area while protecting neighborhoods from truck-related impacts.</p>
---

Policies

- P1. The County shall enforce the truck restrictions described in the Truck Restriction Ordinance.
- P2. Significant new truck traffic-generating land uses should be limited to locations along designated truck routes, in industrial areas or within a quarter mile of freeways.
- P3. The County shall work to reduce truck traffic on Grant Avenue by working with property owners of industrial land to limit truck traffic during morning and afternoon peak commute hours.
- P4. The County shall pursue alternative routes to the Grant Avenue Industrial Area including the West 'A' Street exten-

sion through Hayward, along the alignment of the proposed State Route 61 and along Railroad Avenue to the City of San Leandro.

Actions

- A1. Review and update the truck route designations contained in the County's Truck Restriction Ordinance.
- A2. Review existing enforcement mechanisms to restrict the use of non-designated facilities by trucks, and develop strategies to increase enforcement if needed.
- A3. Maintain a map of truck routes in the Eden Area.
- A4. Work with the City of San Leandro to develop a plan to reduce truck traffic from uses located on City jurisdictional land and adjacent to the Grant Avenue Industrial Area.
- A5. Provide better signage of truck routes and encourage enforcement of restrictions on truck traffic on residential streets.

<b>Goal CIR-9 Minimize the negative effects of traffic on adjacent land uses and improve traffic safety.</b>
--

Policies

- P1. Use of local residential streets by non-local and commercial traffic should be discouraged.
- P2. Appropriate buffering and screening mechanisms should be incorporated in development projects to limit the impacts associated with motor vehicle traffic and parking.

- P3. The use of soundwalls on arterial, collectors and residential streets shall only be allowed if no other design alternatives exist.
- P4. The County shall implement traffic calming measures in order to reduce travel speeds and create a safer pedestrian environment. Priority measures should include street trees, pedestrian-scaled lighting, speed bumps, traffic circles and bulb-outs at intersections.
- P5. Road widening projects shall be limited to ensure that roadways do not become barriers between neighborhoods.
- P6. Safety around at-grade railroad crossings along Western Boulevard and Grant Avenue should be improved through a variety of physical design techniques such as increasing signage, restricting pedestrian access, and creating more gradual transitions in-grade between parallel roadways and the railroad tracks.

#### Actions

- A1. Implement the Neighborhood Traffic Calming Program.
- A2. Review and update development review standards to incorporate adequate buffering requirements in residential areas.
- A3. Work with Caltrans to clean up areas adjacent to highways and along East 14th Street/Mission Boulevard and to minimize impacts from roadway projects on nearby Neighborhoods, Districts and Corridors.

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
CIRCULATION ELEMENT

*This page intentionally blank*

## 5 PARKS AND RECREATION ELEMENT

Public parks, and the passive and active recreation opportunities that they provide, are important contributions to the Eden Area's quality of life. Parks provide areas for outdoor recreation, a contrast to the highly urbanized environment, and access to natural beauty. Parks also provide a place for people to meet and a central location for socializing and community gatherings. In addition, recreation facilities provide educational opportunities.

Unfortunately, the Eden Area is underserved by park and recreation facilities, relative to nearby jurisdictions. The need for additional facilities and the ongoing repair and maintenance for existing sites were discussed during the General Plan process and established as a high priority for Alameda County. These needs are difficult to meet because the Eden Area is substantially built-out with limited opportunity sites for new parks or recreation facilities. Additionally, there are many constraints on capital funding sources to acquire land and improve park facilities.

The purpose of the Parks and Recreation Element is to ensure the comprehensive and long-range preservation and management of a wide range of parks and recreation facilities throughout the Eden Area.

### *A. Background Information*

This section describes the funding provisions made available to Alameda County by the California Quimby Act and describes park and recreation facilities in the Eden Area. Parks and recreational opportunities are provided primarily by the Hayward Area Recreation & Park District and the East Bay Regional Park District. In addition, the Bay Trail offers Eden Area residents trail opportunities. Each of these is described briefly below.

#### **1. California Quimby Act**

The Quimby Act allows cities and counties to require a dedication of land, the payment of in-lieu fees, or a combination of both, from new development to be used for the provision of parks and recreational purposes. Cities and

counties can require land or in-lieu fees for a minimum of 3 acres per 1,000 residents resulting from new development, with the possibility of increasing the requirement to a maximum of 5 acres per 1,000 residents if the city or county already provides more than 3 acres per 1,000 residents.

On August 10, 2004, Alameda County adopted the Park Dedication Ordinance of Alameda County [Ordinance 2004-81 § 1 (part)], which established an in-lieu fee/land dedication requirement for residential development. The requirement was established to ensure that new development would pay its fair share for park and recreation facilities in the Unincorporated Area. Though the ordinance applies to the entire Unincorporated Area, fees or land dedications must be used for facilities which can reasonably be expected to serve the development being taxed. Land or money can only be used for local or community park and/or recreation facilities. Money may be used to acquire land or to make improvements but may not be used for maintenance, operations, or administrative costs. The in-lieu fee/land dedication requirement is not intended to bring the area up to a predetermined park acreage-to-population standard, but rather to maintain the existing level of service. All new development may not be impacted by this Ordinance in the same way. Alameda County based its in-lieu fee/land dedication requirement on a level of service of five acres of land per 1,000 persons.<sup>1</sup>

## **2. Hayward Area Recreation & Park District<sup>2</sup>**

The Hayward Area Recreation & Park District (HARD) is an independent special district providing park and recreation services for over 250,000 residents living within a 64 square-mile area which includes the unincorporated Eden Area communities of Ashland, Cherryland, San Lorenzo, Hayward Acres, and Fairview. It also serves the City of Hayward and the unincorporated community of Castro Valley.<sup>3</sup> HARD operates and maintains 14 rec-

---

<sup>1</sup> [http://www.co.alameda.ca.us/admin/admincode/Alameda\\_County\\_General\\_Ordinance\\_Code/Title\\_12/20/index.html](http://www.co.alameda.ca.us/admin/admincode/Alameda_County_General_Ordinance_Code/Title_12/20/index.html).

<sup>2</sup> Review of and comments for this section were provided by Larry Lepore, Interim Parks Superintendent, HARD, February 2, 2005.

<sup>3</sup> <http://hard.dst.ca.us/index.html>, accessed on January 26, 2005.

reational facilities covering 65 acres inside the Eden Area, almost all of which contains some type of open lawn area with picnic tables and/or play area. The locations, acreages and amenities of recreational facilities in the Eden Area are shown in Table 5-1 and Figure 5-1.

Recreational opportunities are often measured in terms of the combined standard of park acreage-to-population. In the Eden Area there are 66 acres of parkland, excluding the Hayward Regional Shoreline and sites maintained by schools. The 2000 population of the Eden Area was 60,076. Thus, the park acreage-to-population ratio in the Eden Area is 1.1 acre per 1,000 residents. By comparison, the park acreage-to-population ratio in Hayward is 2.5 acres per 1,000 residents; in San Leandro it is 2.6 acres per 1,000 residents.<sup>4</sup>

HARD endorses a combined standard for local, community and regional park acreage-to-population ratio of 10 acres per 1,000 population. This is on the high end of the National Recreation and Park Association's combined goal standard range of 6.25 to 10.5 acres per 1,000 population. HARD categorizes parks and recreational facilities as described below:<sup>5</sup>

◆ **Local Parks**

- **Definition** – Small- to medium-sized parks with basic recreational activities for one or more neighborhoods. Typical neighborhood park facilities may be included as part of a larger community park.
- **Service Area** – ½ to ¾ mile radius
- **Size** – Typically 3 to 10 acres
- **Acreege Standard** – 1.5 acres per 1,000 population



*Playground in the Eden Area*

---

<sup>4</sup> Ratios were calculated based on the populations and park acreages published in each city's general plan. For Hayward, the park acreage-to-population ratio is taken from *City of Hayward General Policies Plan*, April 1995. For San Leandro the data was taken from *Public Review Draft San Leandro General Plan*, November 2001.

<sup>5</sup> HARD *Master Plan*, HARD 1990, page 8. Definitions will be updated with the *Master Plan*, which is scheduled to be released December 2005.

◆ **Community Parks**

- **Definition** – Large parks with a mix of passive and active recreation areas that serve the entire Eden Area or a large portion of the HARD service area. A community park should include, but not be limited to, the facilities that are typically found at neighborhood and mini-parks.
- **Service Area** – Minimum 2-mile radius
- **Size** – Generally 15 - 20 acres
- **Acreage Standard** – 6 acres per 1,000 population

◆ **Regional Parks**

- **Definition** – A large park that serves the open space and recreation needs for all users of the Eden Area and the Planning Area. Regional parks primarily contain natural open spaces and passive recreation areas but may also contain some amount of active recreational facilities.
- **Service Area** – Entire HARD Area
- **Size** – Greater than 100 acres
- **Acreage Standard** – 2.5 acres per 1,000 population

◆ **Other Facilities**

- **Definition** – All other facilities maintained by HARD. These include community centers, aquatics centers, special use facilities and playfields.
- **Service Area** – As appropriate (community centers have a service area of 2 to 3 miles)
- **Size** – As appropriate (aquatics centers must be a minimum of 2 acres)
- **Acreage Standard** – 2.5 acres per 1,000 population

The majority of the parks in the Eden Area are classified as local parks. One park, San Lorenzo Park, is classified as a community park. There are no regional parks located in the Eden Area.

HARD also maintains parks adjacent to a number of schools in the Eden Area, including:

- ◆ Arroyo High School
- ◆ Bohannon Elementary School

TABLE 5-1 **EDEN AREA HARD RECREATION FACILITIES**

Facility	Sub-Area	Acres <sup>a,b</sup>	Type of Park <sup>c</sup>	Amenities <sup>d</sup>
Arroyo High School	San Lorenzo	1.0	L	swim center, open lawn area, P, R
Bohannon School	San Lorenzo	2.7	L	ball fields, soccer fields, open lawn area
Ashland Park	Ashland	1.2	L	picnic tables, BBQs, play area, community center building, meeting rooms, open lawn area, P, R
Cherryland Park	Cherryland	4.0	L	picnic tables, BBQs, play area, basketball courts, horseshoe courts, open lawn area, skate area, P, R
Del Rey Park	San Lorenzo	3.0	L	picnic tables, BBQs, play area, open lawn area, P
Edendale Park	Ashland	1.0	L	play area, open lawn area
Fairmont Linear Park	Ashland	1.2	L	picnic tables, BBQs, play area, open lawn area, P
Hesperian Park	Ashland	0.8	L	play area, open lawn area
McConaghy Park	San Lorenzo	3.1	L	picnic tables, BBQs, tennis courts, horseshoe courts, open lawn area, historical building, P, R <sup>e</sup>
Meek Park	Cherryland	9.8	L	picnic tables, group picnic area, BBQs, play area, open lawn area, historical building, P, R
Mervin Morris Park	San Lorenzo	4.7	L	picnic tables, BBQs, play area, tennis courts, open lawn area, skate area, P, R
San Lorenzo Park	San Lorenzo	31.0	C	picnic tables, BBQs, play area, hiking/riding trails, ball fields, basketball courts, soccer fields, community center building, snack bar, meeting rooms, open lawn area, par course, lagoon, P, R

Note: P = parking lot                      R = restrooms

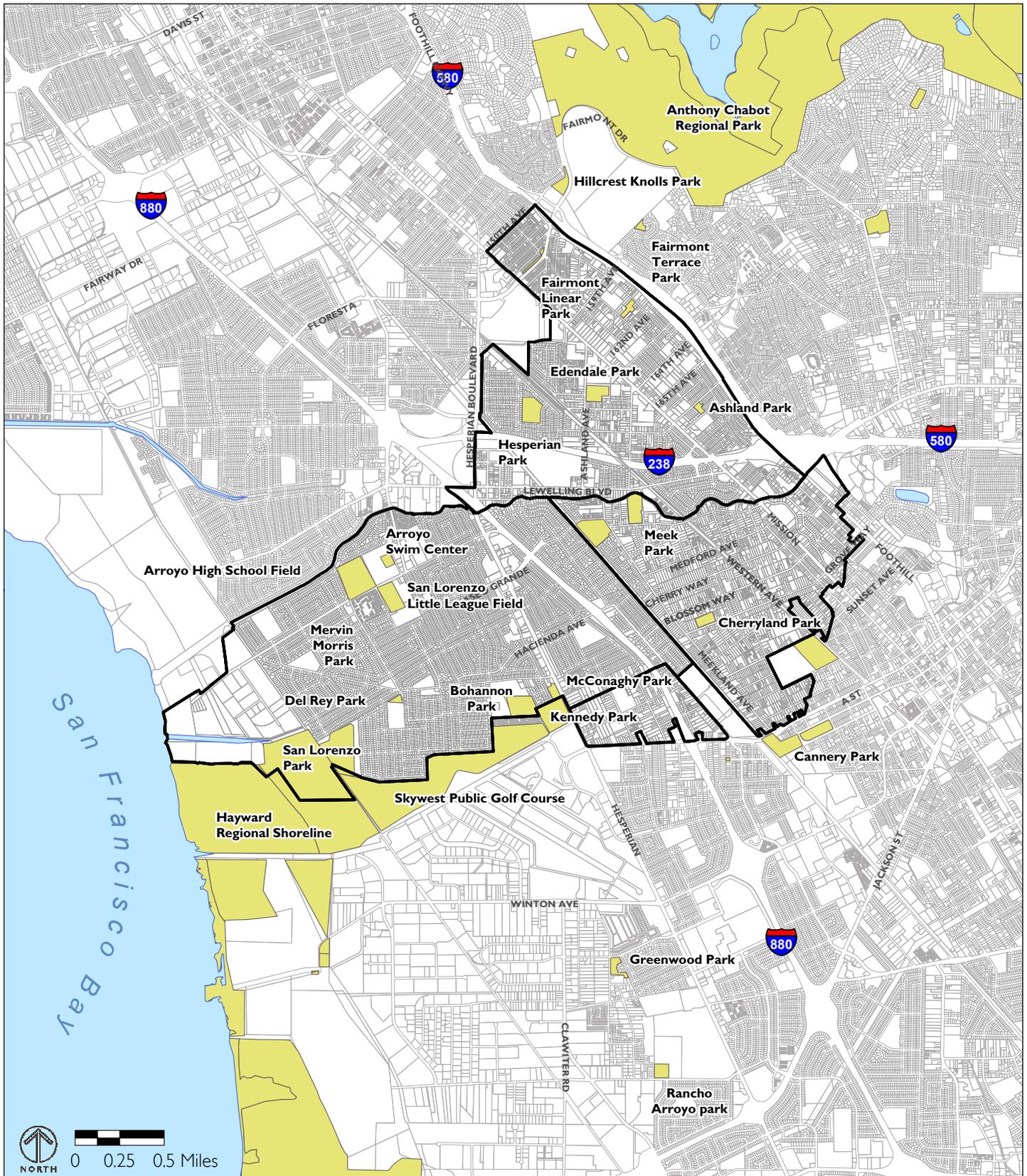
<sup>a</sup> Personal communication with Eric Willyerd, HARD, February 12 and 26, 2003.

<sup>b</sup> The acreages in this table reflect only the open space that HARD maintains. Acreages of school-maintained open space are not accounted for.

<sup>c</sup> L equals a local park, C equals a community park and R equals a regional park.

<sup>d</sup> HARD Facilities Directory ([http://hard.dst.ca.us/fac\\_directory.html](http://hard.dst.ca.us/fac_directory.html), accessed on Jan. 27, 2005).

<sup>e</sup> Restrooms are located at Kennedy Park, which is next door.



Source: Hayward Area Recreational Park District Master Plan, East Bay Regional Park District Master Plan, and Alameda County Community Development Agency.

**FIGURE 5-1**

**PARKS AND OPEN SPACE  
IN AND ADJACENT TO THE EDEN AREA**

- Parks and Open Space
- Study Area Boundary

- ◆ Colonial Acres Elementary School
- ◆ Edendale Middle School
- ◆ Hesperian Elementary School

At these facilities, HARD only maintains the portion of the school yard that is for public use. Each respective school, under the direction of the San Lorenzo Unified School District (SLZUSD), maintains the portions of the schoolyard not maintained by HARD. The portion of the area that is maintained by the school is open to the public for use during non-school hours, with the permission of SLZUSD, although some individuals or organizations may be charged a fee depending on the proposed use of the facilities. SLZUSD does not keep records of the acreage of open space located on the school properties. Additionally, there are recreational spaces at Colonial Acres School in Cherryland, which contains a play area, and at San Lorenzo High School, which contains ball fields and soccer fields. HARD does not maintain these facilities.

HARD also operates an extensive community and recreation program serving all ages throughout the 100 facilities in its service area. HARD's programming includes classes in many areas including art, aquatics, dance, drama, photography, golf, gymnastics, martial arts, tennis, soccer and naturalist activities. However, community recreation programs at facilities located inside the Eden Area are very limited. Ashland Park and Community Center, and the San Lorenzo Community Park are the two recreational facilities in the Eden Area that offer HARD programming, including:

- ◆ Senior Health Screening
- ◆ Social Bridge Group
- ◆ ESL Classes
- ◆ After School Programs
- ◆ Teen Programs
- ◆ Martial Arts Classes
- ◆ Exercise Classes



*Del Rey Park in San Lorenzo*

Additionally, in the After School Playground Program, supervised activities are held at various local community centers and school sites for youth ages 6 to 12 years old, Monday through Friday, when school is in session.

Many of the facilities in the Eden Area have been upgraded or replaced in recent years. Improvements include replacement of all playgrounds, upgrades to all sports fields, installation of new skateboard facilities, a renovation of the Meek Estate building and restoration of the surrounding park and new programming at the Ashland Community Center. HARD completed an update to its *Master Plan* in June 2006.

### 3. East Bay Regional Park District

The Eden Area is also served by two regional parks operated by the East Bay Regional Park District (EBRPD): Hayward Regional Shoreline Park, and Anthony Chabot Regional Park and Lake Chabot. Portions of Hayward Regional Shoreline Park fall within the Eden Area's planning boundaries. Both of these parks provide various recreational, interpretive, natural and scenic opportunities. Each is discussed below:

- ◆ **Hayward Regional Shoreline Park.** The 1,682-acre Hayward Regional Shoreline park is located along the San Francisco Bay. The regional shoreline provides significant recreational, interpretive, natural and scenic values. This park includes the Bay Trail (described below) and can be accessed from Grant or West Winton Avenues. Some of the natural resources of the park include special bird, animal and plant species, historic features, bay open water tidelands, bay marsh wetlands, and fresh marsh wetlands.
- ◆ **Anthony Chabot Regional Park and Lake Chabot Regional Park.** Anthony Chabot Regional Park and Lake Chabot Regional Park are accessible from Fairmont Drive. These two adjoining parks make up the southern boundary of the regional chain of parks that stretches, in an almost continuous swath, north from the Eden Area all the way to Richmond. This park is adjacent to the Fairmont Campus at the northern edge of the Eden Area. Amenities at the park include:

- ◆ Multi-use trails
- ◆ Open lawn areas
- ◆ Equestrian-related amenities
- ◆ Campgrounds
- ◆ Fishing
- ◆ Boating
- ◆ Picnic areas
- ◆ Marksmanship range

The 1997 EBRPD Master Plan does not include plans for additional regional open space in the Eden Area. However, there is a three-acre portion of the shoreline located in the Eden Area. The property is owned by the Oro Loma Sanitary District, which operates the San Lorenzo Sewage Treatment plant. This site is being considered by the County as a potential opportunity site for an additional park resource should it become available for purchase. It is a unique recreational opportunity that could be enhanced by improved connections to the Eden Area.

#### 4. The Bay Trail

The Bay Trail, which is being planned and developed by the Association of Bay Area Governments, is a recreational corridor that, when complete, will encircle San Francisco and San Pablo Bays with a continuous 400-mile network of bicycling and hiking trails. It will connect the shoreline of all nine Bay Area counties, link 47 cities, and cross the major toll bridges in the region. To date, approximately 240 miles of the alignment—over half the Bay Trail’s ultimate length—have been completed. The Bay Trail is maintained by HARD and the EBRPD.

In the Eden Area, the Bay Trail runs along the undeveloped western edge of Grant Avenue Industrial Area immediately adjacent to San Francisco Bay. A trail head and parking lot are located near the western terminus of Grant Avenue. This trail head is a spur trail that connects to the larger Bay Trail. To the south of the Eden Area the Bay Trail connects to the Hayward Re-



*Meek Park*

gional Shoreline.<sup>6</sup> The approach to the trail runs along a circuitous route that uses portions of a Pacific, Gas & Electric access road and a fire road to meet up with the maintained trail on the north side of the San Lorenzo Creek channel. There are currently no plans to improve the connection.

### 5. Adjacent Park Facilities

There are a number of park facilities located in the City of Hayward but which are adjacent to the Eden Area and thus accessible for Eden Area residents. These facilities include:

- ◆ **Greenwood Park** is a 3-acre neighborhood park located at Eden Avenue and Middle Lane.
- ◆ **Cannery Park** is a 7½ -acre neighborhood park located on 'B' Street just south of the Cherryland sub-area.
- ◆ **Kennedy Park** is a 13-acre community park located on Hesperian Boulevard, adjacent to the Hayward Acres and San Lorenzo sub-areas.
- ◆ **Rancho Arroyo Park** is a 4-acre school park located on Depot Road.
- ◆ **Skywest Golf Course** is a par 72, 18-hole championship golf course adjacent to the San Lorenzo sub-area.

In addition to these facilities, there are many parks within the cities of Hayward and San Leandro that are slightly further from the Eden Area but that are still accessible to Eden Area residents.

### *B. Goals, Policies and Actions*

<b>Goal PR-1</b>	<b>Improve the quality of life in the Eden Area through the maintenance and improvement of parks and recreation facilities.</b>
------------------	---

---

<sup>6</sup> Bay Trail website, maintained by the Association of Bay Area Governments. <http://baytrail.abag.ca.gov/overview.html>.

Policies

- P1. A full range of parks and recreational facilities should be provided for Eden Area residents of all ages and physical capabilities.
- P2. Parks in the Eden Area should be regularly maintained and enhanced, as funding is available, to ensure continued public use and enjoyment, enhance public safety and prevent deterioration. Priorities set by the public for improvements to existing parks include the following:
- ◆ Community centers at Hesperian Park, Edendale Park and Meek Park.
  - ◆ Athletic fields at Edendale Park.
  - ◆ Tennis and/or basketball courts at Ashland Park.
  - ◆ Dog park at Cherryland Park.
  - ◆ Playgrounds at Ashland Park.
  - ◆ Picnic and barbeque facilities at Ashland Park and Edendale Park.
- P3. Park facilities in the Eden Area should maintain a balance between active and passive recreation and should ensure that the park system benefits a diverse range of interest groups.
- P4. The County, working with HARD, shall strive to achieve a combined park acreage-to-population ratio of five acres per 1,000 population for local and community parks in the Eden Area.
- P5. The County shall work with HARD to locate a park that is accessible to every Eden Area resident by foot or transit.

- P6. The County shall work with HARD to identify sufficient, appropriately-located land to meet the park standards identified in HARD's parks Master Plan.
- P7. New and rehabilitated parks in the Eden Area shall comply with the requirements and standards in the Americans with Disabilities Act (ADA).
- P8. Existing recreational programs shall be maintained and enhanced to the greatest extent feasible.
- P9. All park and recreation lands shall, to the greatest extent feasible, be dedicated and held inviolate in perpetuity, protected by law against diversion to non-recreational purposes and against invasion by inappropriate uses. Exceptions to this policy may be made in the interest of acquiring additional park land or recreation facilities.

Actions

- A1. Conduct regular community outreach with residents, neighborhood associations, and similar groups to solicit public input on park needs.

<b>Goal PR-2    Develop new parks and recreational facilities in the Eden Area to meet existing deficiencies.</b>
---

Policies

- P1. Work with HARD to identify strategic locations for new or expanded parks in the Eden Area. Several potential future park sites have been identified through the General Plan process and are listed below:

- ◆ A new park at the former Holland Oil Site on the west side of East 14<sup>th</sup> Street and north of Kent Avenue.
  - ◆ The expansion of Mervyn Morris Park to include the Little League fields leased by the San Lorenzo Village Homes Association and two privately-owned parcels along Nielson Avenue.
  - ◆ The expansion of Kennedy Park on land behind the Bohannon School on Bockman Road.
- P2. Given limited land availability, the County shall work with HARD to establish highly programmed recreation centers.
- P3. Priorities for new park and recreational facilities should include: community centers, playgrounds, swimming pools, dog parks, athletic fields, a gymnasium, picnic sites and a skate park.
- P4. Require new development to pay an impact fee or dedicate parkland at five acres of parks per 1,000 population to offset the increase in park needs resulting from new residents to the greatest extent allowed by law.
- P5. In-lieu park fees shall be maintained at levels that reflect true costs of land acquisition and park development costs.
- P6. New parks dedicated through the development process shall be improved by the project sponsor and ownership shall be transferred to HARD.
- P7. New parks and recreation facilities shall be designed to maximize usable open space, avoid conflicts with adjacent neighborhoods and provide direct pedestrian and bicycle access between homes and parks.

- P8. To the extent feasible, new investments in parks should be focused on neighborhoods that are the least served in terms of park access and variety of recreational amenities.
- P9. To the greatest extent feasible, new neighborhood and community parks should be located in predominantly residential areas.
- P10. The inclusion of publicly-accessible parks, plazas, courtyards, landscaped commons and other open spaces shall be pursued within new commercial, industrial and public facility development projects.
- P11. The development of privately owned and operated recreation facilities, such as skating rinks, bowling alleys, and batting cages, should be encouraged so long as such facilities are compatible with surrounding uses and consistent with community goals.
- P12. When it is determined that a school is to be closed and that the facility will not be required in the future, the reuse of the property for park, recreation and community facilities should be the highest priority.
- P13. To the extent feasible, when a water retention basin is required for development, the retention basin shall be designed to serve as a usable green space such as a playfield.

Actions

- A1. Maintain the County's park in-lieu fee at a level that reflects current costs and needs and addresses park needs generated by infill development. The park in-lieu fee shall be updated, at a minimum, every two years.

- A2. Pursue diverse funding for park improvements including development impact fees, development agreements, the redevelopment agency, private donations and federal and state grants.

<b>Goal PR-3 Pursue the joint use of public facilities for recreational purposes.</b>
---

Policies

- P1. The County, working with HARD, shall promote joint use agreements with school districts and other public agencies to maximize public access to all public spaces and grounds during non-business or school hours.
- P2. The County shall work with the school districts to develop creative solutions to maintenance, liability, security and funding challenges associated with the joint use of school properties for public recreation.
- P3. The County shall work with the school districts to implement design changes that allow school grounds to function as parks and recreational facilities.

Actions

- A1. Work with the surrounding school districts, EBMUD and other public agencies to expand, create and maintain new joint use facilities and agreements.

<b>Goal PR-4 Create a comprehensive network of multi-use trails and linear park facilities within and through the Eden Area.</b>
--

Policies

- P1. The County shall pursue the conversion of underutilized rail corridors and spurs in the Eden Area into multi-use trails.
- P2. The County shall improve access to the Bay Trail from the Grant Avenue Area. Such activities should include, at a minimum, increased parking, visible signage, restrooms and improved trail information.
- P3. Trails in the Eden Area should have adequate pedestrian amenities including benches, tables, restrooms and lighting.
- P4. The County should pursue opportunities to increase access from all parts of the Eden Area to the EBRPD trail system, the Hayward Regional Shoreline and Chabot Regional Park. These opportunities include improved trailheads that serve Eden Area residents, improved access from within the Eden Area and enhanced signage.
- P5. Support the ongoing effort to create a multi-use trail along the BART right-of-way. This trail should include paved paths, landscaping and lighting to encourage walking and biking, enhance the visual appearance and ensure public safety. Design of the multi-use path should address privacy, noise and nuisance issues for adjacent residents.

Actions

- A1. Work with EBRPD, the Association of Bay Area Governments, East Bay Municipal Utilities District, HARD, Alameda County Flood Control and any other appropriate agency to enhance access to and facilities near and within the Bay Trail and the Hayward Regional Shore-

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
PARKS AND RECREATION ELEMENT

line. Improvements should include additional signage, expanded parking facilities and pedestrian amenities such as benches, trash cans and restrooms.

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
PARKS AND RECREATION ELEMENT

*This page intentionally blank*

## 6 PUBLIC FACILITIES AND SERVICES ELEMENTS

The Public Facilities and Services Element provides information and policy guidance to ensure provision of facilities and services in the Eden Area. It addresses the changing public services and infrastructure needs of the Eden Area and provides for logical and timely extension to keep pace with projected growth. Policies supporting quality libraries, excellent police and fire services, and well maintained infrastructure are essential to achieve broader development objectives, and support the future envisioned by the residents of the Eden Area.

Although the Public Facilities and Services Element is not explicitly required by State law, the topics addressed here are an integral part of the County's overall planning strategy and a basic consideration in setting growth and development policy. State law requires the Land Use Element to include "the proposed general distribution and general location and extent of the uses of the land for...solid and liquid waste disposal facilities" and it requires the Circulation Element to include information on "the general location and extent of existing and proposed... public utilities and facilities." These components are included in this Element, which covers the following topics:

- ◆ Police
- ◆ Fire
- ◆ Libraries
- ◆ Child care
- ◆ Schools
- ◆ Solid Waste
- ◆ Water Service
- ◆ Wastewater
- ◆ Stormwater

Several different agencies provide services to parts of the Eden Area. Some of the agencies serve all of Alameda County while others are special service districts, which only serve portions of this unincorporated area. Thus, this General Plan aims to build partnerships between the County and these independent public agencies that provide services to the Eden Area.

## 1. POLICE

Safety and security is an important issue in the Eden Area especially since many households have older residents or young children. The Alameda County Sheriff's Office provides a full range of law enforcement services to the entire unincorporated area of Alameda County including the Eden Area, Castro Valley and East County. An overview of these services is described in this section.

### *A. Background Information*

Law enforcement in the Eden Area is provided by the Alameda County Sheriff's Office (ACSO) from three main facilities:

- ◆ **Eden Township Substation**, located at 15001 Foothill Boulevard at 150<sup>th</sup> Street. The Eden Township Substation also functions as the Sheriff's main station for municipal police services.
- ◆ **Emergency Services Dispatch Center**, located on 150th Avenue. The Emergency Services Dispatch Center is across the street from the Eden Township Substation.
- ◆ **Community Crime Prevention Unit Office**, located at the Ashland Community Center.

The entire urbanized portion of unincorporated Alameda County, including the Eden Area, Castro Valley and Sunol, has a staff of 140 sworn officers. The Eden Township Substation has 70 officers. The current (2009) ratio of officers per thousand residents in the Eden Area is 0.92.<sup>1</sup> According to the City of San Leandro's 2001 General Plan, the ratio in that City was 1.2.<sup>2</sup> The

---

<sup>1</sup> Liskey, Paul. Officer, Alameda County Sheriff's Office. Personal Email communication with Cindy Horvath, Alameda County Community Development Agency. April 3, 2010.

<sup>2</sup> *City of San Leandro General Plan*, 2001, page 8-2.

ratio in the City of Hayward in 1998 was 1.5, according to the Downtown Hayward Redevelopment Plan Amendment Draft EIR.<sup>3</sup>

Law enforcement functions include primary patrol, a variety of adult and juvenile criminal investigation squads, youth & family services, crisis intervention and crime prevention, disaster management, search & rescue, and various other related services.

The ACSO provides dispatch services from its dispatch center located in San Leandro. All 911 calls originating in the unincorporated areas are received by the dispatch center and patrols are dispatched from there. Calls for fire and medical services are sent to the regional dispatch center in Livermore, except 911 calls from Fairview which are transferred to the City of Hayward.<sup>4</sup>

There were 51,819 calls for service and 54,060 officer-initiated activities in the Eden Area in 2009. In 2009, crime rates for the following categories declined over 2008: homicide, robbery, aggravated assault, burglary, motor vehicle theft and larceny. Larceny was the most reported crime in the Eden Area in 2009, and homicide the least reported.

The ACSO is consolidating and replacing the Eden Township Substation and the Emergency Services Dispatch Center because they lack the necessary infrastructure and design features to adequately meet the area's law enforcement needs. The new facility will most likely be located on Fairmont Drive at the site of a former animal shelter. The current facilities comprise a total of 33,400 square feet: 11,340 square feet for law enforcement operations, 6,000 square feet for Dispatch/Warrants/Records, 4,500 square feet for Youth & Family Services, 4,000 square feet for Property/Evidence and 7,560 square

---

<sup>3</sup> Hayward Redevelopment Agency. *Downtown Hayward Redevelopment Plan Amendment Draft EIR*, 1998, page 103.

<sup>4</sup> *Final Municipal Service Review Volume I—Public Safety Services Appendix A*. Report to the Alameda Local Agency Formation Commission Submitted by Burr Consulting in association with Braitman & Associates and GIS/Trans, September 16, 2004, page 37.

feet for the Crime Lab. In order to accommodate growth projections for the next 30 years, the new facility is proposed to include 111,600 square feet. The new facility will incorporate the Coroner's Bureau in addition to those facilities listed above.<sup>5</sup>

The ACSO acts as mutual aid coordinator for the entire County. Additionally, it shares helicopters with neighboring cities, organizes the regional narcotics task force for Alameda County and participates in the FBI's Joint Terrorism Task Force, the CHP-headed auto theft task force and the Sexual Assault Felony Enforcement task force. Bomb squad services are also provided as part of countywide mutual aid. SWAT contract service recipients are charged a fee, but other agencies that request SWAT service are not billed for it. The Sheriff's Office training academy program is available to all Sheriff's recruits, and to other law enforcement agency recruits on a contractual basis.

The ACSO is mostly funded through the County's General Fund, except for a small portion of its budget received through revenue allocated from the Educational Revenue Augmentation Fund (ERAF). Other revenue for the Sheriff's Office comes from impact fees, contract service fees, property taxes, vehicle license fees and State and federal aid.<sup>6</sup> Some of these funding sources, including ERAF and property taxes, have declined over the last several budget cycles due to the continuing recession faced by the state. As a result, the ACSO, like other county agencies, has had to reduce some services. However, it has achieved this reduction without compromising its basic public safety mission.<sup>7</sup>

---

<sup>5</sup> Personal written communication from Lieutenant William Gaudinier, Alameda County Sheriff's Office, to DC&E on February 14, 2005.

<sup>6</sup> Personal Communication from Don Graff, ACFD Finance Manager, April 4, 2005.

<sup>7</sup> Personal Communication from Don Graff, ACFD Finance Manager, April 4, 2005.

*B. Goals, Policies and Actions*

<b>Goal PF-1</b>	<b>Maintain a safe environment in the Eden Area through the prompt and efficient provision of police service.</b>
------------------	---

Policies

- P1. The County shall strive to continuously improve performance and efficiency in the Sheriff's Office.
- P2. The ACSO shall maintain adequate police staffing, performance levels and facilities to serve the Eden Area's existing population as well as its future growth.
- P3. The County shall reserve adequate sites for sheriff facilities in the Eden Area.
- P4. Old or outdated sheriff's facilities should be replaced, to the greatest extent feasible, with new facilities that have the necessary infrastructure and design features to adequately support police functions for the area.
- P5. The level of service standard shall be a maximum of a five minute response time for Priority One Emergency calls.

Actions

- A1. On a continuing basis, monitor crime rates and types of crime in the Eden Area to determine the most appropriate crime reduction methods.
- A2. Provide neighborhood security and crime prevention information and training to citizens, neighborhood groups and homeowners' associations, and work with the commu-

nity in establishing Neighborhood Watch programs that promote mutual assistance and crime prevention techniques among residents.

- A3. Review the adequacy of existing sources of funding and identify potential new sources of funding to implement law enforcement goals on an annual basis.

<b>Goal PF-2 Promote coordination between land use planning and law enforcement.</b>
--

Policies

- P1. Land use development proposals shall be reviewed for site design criteria and other law enforcement concerns.
- P2. Physical site planning should be used as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas and other public spaces should be designed for maximum exposure to community residents.
- P3. The County should not approve development proposals or permits that create mini-subdivisions or apartment complexes. Gated developments shall be discouraged.
- P4. As the need arises, new police substations shall be located in Districts or along Corridors wherever possible and feasible.

Actions

- A1. Create and implement an action plan to mitigate any existing design features identified by the ACSO as law enforcement hazards. These hazards include interior driveways or private streets with limited visibility from the street for pa-

trol personnel, and fort-like apartment complexes that are difficult to police.

- A2. Develop and adopt site design guidelines for reviews of new development that take into account concerns of the Sheriff's Office about visibility and access while providing for the needs and concerns of residents.
- A3. Coordinate with the ACSD early in the development project review and approval process to identify and address all potential design and visibility issues of concern to ACSD operations in the Eden Area.

## 2. FIRE

Fire service for most of the Eden Area encompasses a wide range of programs including fire suppression and prevention, paramedic services, arson investigations and fire inspections, code enforcement, public education and community relations, wildland interface, search and rescue, hazardous materials response and emergency medical services. These services are discussed in detail in this section.

### A. *Background Information*

Fire and emergency medical services for the Eden Area are provided by the Alameda County Fire Department (ACFD).



*Alameda County fire station*

### 1. Alameda County Fire Department<sup>8</sup>

ACFD was formed July 1, 1993 as a dependent special district with the Board of Supervisors as its governing body. This action brought together under a single jurisdiction the Castro Valley Fire Department, the Eden Fire Department and the County Fire Patrol, which were previously separate, dependent special districts. The ACFD is responsible for all of the unincorporated County areas, with the exception of the Fairview area, as well as through contract to the cities of San Leandro and Dublin and the U.C. Berkeley Lawrence National Laboratory. In 1995, the Alameda County volunteer firefighters were made an official section of the ACFD.

ACFD's total FY 2008-09 budget was \$74.5 million and its authorized staffing level was 368.

Fire services are funded through a combination of unincorporated property tax revenues; EMS revenues such as special tax assessments for paramedic services and first responder advanced life support payments from the County Emergency Medical Services County Service Area; contract service revenue; and other miscellaneous service fees and charges. ACFD does not currently assess an impact fee on development in the Unincorporated Area to pay for resulting service demands. ACFD has never issued any public debt.

ACFD's total service area is approximately 461 square miles with a population of 249,467. ACFD has 20 fire stations, including a station in Sunol staffed by the California Department of Forestry through a contract with ACFD. The Department also has 20 engine companies, five ladder truck companies and one heavy rescue unit. First-Responder Paramedic services are available on a 24-hour per day, 365-day per year basis throughout the entire ACFD service area. Additionally, ACFD has three Specialized Response Teams: Hazardous Materials, Urban Search & Rescue, and Water Rescue.

---

<sup>8</sup> All information in this section from a Personal Communication Don Graff, ACFD Finance Manager, April 4, 2005.

ACFD's unincorporated service area includes most of the Eden Area, including San Lorenzo, Hayward Acres, Ashland, and Cherryland. The total Unincorporated Area, which includes covered portions of the Eden Area, Castro Valley, Sunol, Kilkare and East County, encompasses 434 square miles and 138,900 people.

There are three fire stations staffed by ACFD that serve the Eden Area:

- ◆ **San Lorenzo Station #1** located at 427 Paseo Grande. The station houses one engine company and serves the downtown, residential and business areas of San Lorenzo.
- ◆ **Cherryland Station #2** located at 109 Grove Way. The station houses one engine company and one reserve engine, and serves the southernmost parts of San Lorenzo, as well as Cherryland and Hayward Acres.
- ◆ **Ashland Station #3** located at 164th Avenue. The station consists of one Heavy Rescue Unit and one reserve engine, and serves all of Ashland, as well as major sections of Interstate 580 and Interstate 238.

In January 2002, the Board of Supervisors approved ACFD's participation and membership in the Alameda County Emergency Dispatch Consortium. This Consortium includes the County Emergency Medical Services Agency, the City of Alameda and the U.C. Berkeley Lawrence National Laboratory. In addition to the original members, the Consortium now includes the US Army Camp Parks, and the cities of Fremont and Union City. Its goal is to enhance the regional dispatch and communication system through the consolidation of fire and medical dispatch. The result has been a more effective and responsive regional dispatch system for fire and medical emergencies.

Because 911 calls may relate to policing, fire or medical emergencies, all non-cell phone 911 calls originating in the unincorporated Eden Area must be routed initially to the Sheriff's Office who determines the type of call and then immediately transfers all fire and medical calls to the Regional Dispatch Center which sends out appropriate fire or medical services. ACFD is able to respond to calls within five minutes 90 percent of the time, meeting the Na-

tional Fire Protection Association and California EMS Agency guidelines. By comparison, the median response time for all Alameda County fire service providers is 4 minutes 53 seconds. As shown in Table 6-1, the ACFD received 10,621 service calls within the total Unincorporated Area. There were 2,018 fire and alarm calls, and 8,603 emergency medical and other calls.<sup>9</sup>

Special fire safety concerns by ACFD for the Eden Area include:

- ◆ Emergency operations on adjacent interstate highways.
- ◆ Difficult passage for emergency vehicles due to substandard, narrow access roadways.
- ◆ Difficult passage for emergency vehicles at railroad crossings at-grade, especially to the industrial areas at the west end of Grant Avenue.
- ◆ Concentrated mix of manufacturing, industrial, storage and residential uses along the Meekland Avenue corridor.
- ◆ Poor hydrant spacing in portions of Ashland, Cherryland and San Lorenzo.
- ◆ Inadequate fire flow, less than the required 1000 gallons per minute, in the industrial complex at the western end of Grant Avenue in San Lorenzo, along Meekland Avenue in Cherryland.

According to the County's Capital Improvement Plan (CIP), three of the County's fire stations are inadequate and require replacement. The San Lorenzo fire station (Station 1) requires replacement and will require another site as its existing site is too small for a replacement facility. Station 1 is owned by the San Lorenzo Homes Association and is leased by the ACFD. The Cherryland Fire Station (Station 2) requires replacement as replacement is less expensive than seismic upgrade of the facility. The Ashland Fire Station (Station 3) requires expansion to serve as a maintenance facility. In addition, the remaining four stations in the Unincorporated Area need seismic

---

<sup>9</sup> Personal communication from Don Graff, ACFD Finance Manager to DC&E on April 4, 2005.

TABLE 6-1 **CALLS TO ACFD FOR SERVICE IN THE EDEN AREA FY 2002-2003**

Calls by Type	Entire Unincorporated Area	Station 1: San Lorenzo <sup>a</sup>	Station 2: Cherryland & Hayward Acres <sup>a</sup>	Station 3: Ashland, Fairmont Campus, Hillcrest & El Portal Ridge <sup>a</sup>
Total Emergency Calls	10,621	1,634	1,565	2,471
Fire Calls	2,018	352	298	496
Medical Calls	8,603	1,282	1,267	1,975

<sup>a</sup> Data is not available which would allow for a more specific breakdown by areas serviced by a particular station.

Source: Personal communication Don Graff, ACFD Finance Manager April 4, 2005.

upgrading or replacement. At the present time, neither the Fire Department nor the County have identified the financial resources to meet these needs, currently estimated at over \$28 million.

The ACFD has established automatic and mutual aid agreements with a variety of agencies in order to ensure the highest level of fire and medical response in the event of local or regional disasters. Automatic aid agreements exist with the U.C. Berkeley Lawrence National Laboratory, the City of Oakland, the San Ramon Valley Fire Protection District and the Livermore-Pleasanton Fire Department. The ACFD agreement with Oakland includes a mutual aid response to cover the southern Oakland Hills area, and a shared automatic aid agreement for freeways 580, 880 and 680. All fire departments in Alameda County share a countywide mutual aid agreement and are part of the *State Master Mutual Aid Plan*.

## 2. Hayward Fire Department<sup>10</sup>

The Hayward Fire Department (HFD) participates in the Alameda County Mutual Aid Agreement and the Statewide Mutual Aid Plan. The Department has an automatic mutual aid agreement with Union City to respond to incidents on Highway 880 and with Foster City to respond to incidents on the Hayward-San Mateo Bridge. HFD responds as requested to neighboring jurisdictions and also participates in the Alameda County strike teams to assist the State with major wildland fires.<sup>11</sup> As part of the South Mutual Aid Zone, HFD also provides mutual aid with the Alameda County Fire Department and the fire departments of the cities of Newark, Union City and Fremont.<sup>12</sup>

### *B. Goals, Policies and Actions*

<b>Goal PF-3</b>	<b>Minimize the loss of life and property from fires, medical emergencies and other types of emergencies.</b>
------------------	---

#### Policies

- P1. The County should strive to continuously improve the performance and efficiency of fire protection services for the Eden Area.
- P2. The County shall plan for new fire station locations to maintain or enhance current response levels.

---

<sup>10</sup> *Eden Area Redevelopment Plan DEIR*, adopted in July 2000, p. 12-10.

<sup>11</sup> *Final Municipal Service Review Volume I—Public Safety Services Appendix A*. Report to the Alameda Local Agency Formation Commission Submitted by Burr Consulting in association with Braitman & Associates and GIS/Trans, September 16, 2004, page 63

<sup>12</sup> Phone interview with Deputy Chief Paul Valencia, February 2, 2005.

- P3. The County shall provide adequate sites for fire facilities in the Eden Area. Planned facilities include a new station on the west side of Hesperian Boulevard and a new station in the vicinity of Cherryland.
- P4. Old or outdated fire facilities shall be replaced with new facilities containing the necessary infrastructure and design features to adequately support fire and emergency functions for the area.
- P5. Fire flow shall be improved to 1,000 gallons per minute in areas with identified deficiencies, including the industrial complex at the western end of Grant Avenue in San Lorenzo, along Meekland Avenue in Cherryland.
- P6. Necessary fire and emergency response facilities and personnel shall be provided, to the greatest extent feasible, to meet residential and employment growth in the Eden Area.

Actions

- A1. Update the Alameda County *Fire Protection Master Plan* on a regular basis.
- A2. Maintain a list of areas where fire flow is below the 1,000 gallon per minute standards and identify funding sources to improve fire flow in those locations.
- A3. Identify funding sources to improve hydrant spacing in portions of Ashland, Cherryland and San Lorenzo where the Fire Department has determined that spacing is inadequate.
- A4. Continue to actively cooperate with the Hayward Fire Department and surrounding Fire Departments.

- A5. Work with Caltrans to improve existing protocols for emergency operations on interstate highways adjacent to the Eden Area.

<b>Goal PF-4 Promote coordination between land use planning and fire protection.</b>
--

Policies

- P1. Fire hazards shall be identified and mitigated during the project review and approval process for new development.

Actions

- A1. Maintain a fire and life-safety inspection program for all buildings in the Eden Area. The program should include penalties for Building Code violations that contribute to fire and life-safety hazards.
- A2. Identify potential fire and life-safety hazards resulting from mixed manufacturing, industrial, storage and residential uses along the Meekland Avenue corridor and develop a mitigation program to address these issues.
- A3. Collaborate with the ACFD to identify clear standards for new development that will mitigate the potential for fire hazards.
- A4. Coordinate with the ACFD early in the development project review and approval process to identify and address all potential fire hazards.

### 3. LIBRARIES

Libraries provide communities with a wide variety of services that enhance learning for all ages, provide access to resources, and supply safe and comfortable public facilities for numerous activities.

#### *A. Background Information<sup>13</sup>*

The Alameda County Library System provides library service to the Eden Area. The San Lorenzo Library serves the majority of the Eden Area and is located in San Lorenzo at 395 Paseo Grande. This library was built in 1969 and has 11,867 square feet of floor area to serve an estimated population of 58,860 people. The library has 20 staff positions, or 13.7 full-time equivalent positions. Eden Area residents are also served by the Castro Valley Library, located in Castro Valley at 20055 Redwood Road. This 10,239-square-foot facility will be replaced with a 41,333 square foot library on Norbridge Avenue.

The County Library System recommends that library facility space should provide between 0.5 and 0.6 square feet per capita.<sup>14</sup> Based on the 2004 population estimates, the San Lorenzo and Castro Valley Libraries have 0.19 and 0.17 square feet per capita respectively .

Libraries that serve residents of the Eden Area, as well as other communities include:

---

<sup>13</sup> All information in this section was obtained through personal communication with Peggy Watson, Head of Branches, Alameda County Library, on February 3, 2005, unless otherwise indicated.

<sup>14</sup> Per capita requirement is based on the standard of practice which ranges from 0.5 to 0.75. Personal communication with Peggy Watson, Head of Branches, Alameda County Library, April 1, 2005.

- ◆ South Branch of the San Leandro Public Library, located on East 14<sup>th</sup> Street at 148<sup>th</sup> Avenue.<sup>15</sup>
- ◆ Main Branch of Hayward Public Library, located on “C” Street at Mission Boulevard.<sup>16</sup>

The 1998 County Library System’s Strategic Plan was produced in response to the significant demographic, technological and fiscal challenges confronting the Library. These challenges, which are still considered pertinent in 2005, include:

- ◆ The growing need for library services due to population growth.
- ◆ Rapidly changing information technologies that alter the kinds of services the library can provide to the community.
- ◆ Severe limitations on the System’s financial resources.

The Library System staff is currently discussing means for expanding the San Lorenzo Library to accommodate the unmet need for library services in the Eden Area. For this reason, library staff is working with supporters in a public process to identify possible sites and funding sources for a replacement library.

---

<sup>15</sup> Non-residents and non-property owners of the City of San Leandro may obtain a library card for a fee of \$50 per year. All family members living at the same address are included. A photo identification and verification of residence are required. City of San Leandro Public Library website: <http://www.ci.san-leandro.ca.us/sllibrarypolicies.html>, accessed March 31, 2005.

<sup>16</sup> All California residents may receive a library card free of charge to the City of Hayward Public Library with address verification and acceptable identification. City of Hayward Public Library website: <http://www.hayward-ca.gov/webware/Default.aspx?Message=771&t=-1>, accessed March 31, 2005.

*B. Goals, Policies and Actions*

<b>Goal PF-5</b>	<b>Provide sufficient library services to meet the information, cultural and educational needs of the population of the Eden Area.</b>
------------------	--

Policies

- P1. To the extent feasible, the County should strive for a standard of between 0.5 and 0.6 square feet of library space per capita in the Eden Area.
- P2. The County should continue to support the upgrading and expansion of Alameda County Library System services in the Eden Area, including the San Lorenzo Library Replacement Project, in order to keep pace with community needs and changes in information technology.
- P3. Library funding should remain adequate to sustain existing service levels and where possible, increase service levels.
- P4. Libraries should provide training programs to increase community access to reading materials and information technology. Such programs might include reading programs for adults and children, and computer training on basic computer literacy, internet use and information retrieval.

Actions

- A1. Identify funding sources and locations to expand library services in the Eden Area. When funding is available, create new branch libraries in Ashland and Cherryland.

- A2. Regularly seek and secure funding to provide books, computers and training courses to ensure that Eden Area residents have the tools they need to access information efficiently and successfully.
- A3. Continue to use utility user tax revenue for library improvements.

#### 4. CHILD CARE<sup>17</sup>

The Eden Area has a significant population of children who require child care services. The ability or inability for households to get needed child care affects their earning potential.

##### *A. Background Information*

Data for child care needs and services is collected by zip code. Therefore, information in this section covers the Eden Area, a portion of Castro Valley and a portion of San Leandro. Information is provided for an extended service area beyond the boundaries of the Eden Area in order to provide a clear picture of the child care options available.

In this extended service area, there are approximately 31,200 children under 14 years of age, the age up to which child care is typically provided. About 63 percent of these children, or 19,500, live in two-parent households in which both parents work or in households where the head-of-household is a working single parent. This percentage is particularly high when compared to

---

<sup>17</sup> All data in this section from a personal communication with Rosemary Obeida and Vincent Cheng, Community Child Care Coordinating Council of Alameda County (4C's of Alameda County), November 15, 2004.

the statewide rate of 55 percent. Median family income for the Eden Area is \$47,324. In 2004, the average cost of full-time care to a household with an infant and a preschooler in the extended Eden Area was \$15,392 or approximately one third of median family income.<sup>18</sup>

There are two main types of child care facilities in the Eden Area: family child care home facilities and child care centers. In September 2004, there were 259 providers of licensed care, in both family and center child care centers, in the Eden Area and surrounding communities and 5,442 slots for children under the age of 14.

Family child care home facilities can be “small” – licensed for up to eight children or “large” – licensed for 9 to 14 children. Small home facilities are allowed “by right” to have no zoning requirements but must meet State requirements for small family child care home facilities. Alameda County requires permits for large family child care home facilities. Overall, 32 percent of licensed child care slots in the extended Eden Area are provided by 194 family child care homes. However, family child care home facilities offer more than 75 percent of the infant care slots in the Eden Area.

Child care centers may provide care for 15 or more children, although they must also abide by square footage set by the State. Licensing procedures require that both family child care home facilities and child care centers maintain specific child-to-staff ratios based on children’s ages. Though there are fewer child care centers than family child care home facilities, they provide the majority of child care slots in the Eden Area. There are 65 child care centers providing 68 percent of the total licensed care slots in the Eden Area. These 65 centers provide the bulk of care for both preschoolers and school age children.

As noted above, there are 19,500 children in the Eden Area and surrounding communities who live in households with a potential need for child care ser-

---

<sup>18</sup> Zip codes were used to define the area because this is the level at which the 4C’s of Alameda County collects data. Zip codes used to approximate the Eden Area were 94541, 94546, 94578, 94580.

vices. However, there are only 5,442 slots for children under the age of 14. Thus, if all of these households sought child care services in the extended Eden Area, there would be a gap in child care of 14,072 slots. While this gap is large, it may overstate the problem somewhat because some households may prefer to seek child care services near their places of employment or near family members or school facilities outside the immediate area. The Eden Area and surrounding communities have fewer jobs than they do households. Many Eden Area residents work outside the Unincorporated Area and thus may prefer to obtain child care options elsewhere.

*B. Goals, Policies and Actions*

<b>Goal PF-6</b>	<b>Encourage adequate provision of licensed child care in the Eden Area and promote coordination between child care and land use planning.</b>
------------------	--

Policies

- P1. A range of new child care services should be encouraged throughout the Eden Area to meet the needs of a growing population.
- P2. The County should work with all applicable agencies to provide subsidized child care services to lower income families in the Eden Area, to the greatest extent possible.
- P3. The County should continue to collaborate with the Hayward and San Lorenzo Unified School Districts and the Hayward Area Recreation and Park District (HARD) to provide after-school care and day camps in the summer and during the holidays and vacations.

- P4. The County shall encourage the siting of child care and other care facilities in areas with compatible land use and character, and shall encourage such facilities to be located near Districts, Corridors, Special Precincts, homes, schools, community centers, recreation facilities, transit stops, and commercial areas.
- P5. The County shall support the provision of low cost or no cost leases for child care programs.

Actions

- A1. Study the feasibility of an impact fee for the development of child care facilities or the payment of an in-lieu fee.
- A2. Provide the Alameda County Child Care Planning Council with the opportunity to review large proposed residential developments and make recommendations about the need for additional child care programs.

## 5. SCHOOLS

Education is an important issue for every community, and in particular the Eden Area, where more than a quarter of the population is under 18 years of age. However, the County's ability to plan for school facilities is limited to a considerable degree by State law, which puts the approval of educational facilities under the jurisdiction of the State. State legislation limits the ability of local governments to condition approval of new development on the availability of school facilities.

*A. Background Information*

The Eden Area is served by two school districts: the San Lorenzo Unified School District (SLZUSD) and the Hayward Unified School District (HUSD).

**1. San Lorenzo Unified School District**

The SLZUSD operates nine elementary schools, three middle schools and two high schools in the Eden Area. SLZUSD also operates a continuation high school, special education program and independent/home study programs.<sup>19</sup> The District generally maintains a 20:1 student-to-teacher ratio in grades Kindergarten through third, and 25:1 in grades four through twelve.<sup>20</sup> Table 6-2 shows the average student-to-teacher ratios for all grades in Alameda County School Districts.

Details on each school in the SLZUSD, including site acreages, enrollment and capacity figures, and age of building are shown in Table 6-3. During the 2007-2008 school year, Arroyo High School and San Lorenzo High School were slightly above capacity; all other SLZUSD schools were below capacity.<sup>21</sup>

SLZUSD's staffing for 2007-2008 totaled 1,244 employees, including 668 classroom teachers.<sup>22</sup> The District had recently completed a five-year upgrade process of its schools, including electrical and plumbing upgrades, replacement of roofs and flooring, and installation of internet access.

---

<sup>19</sup> Information from the *San Lorenzo Unified School District Information 2004-2005 Guide*.

<sup>20</sup> Personal communication with Lowell Shira, Assistant Superintendent of Business Services to DC&E on January 31, 2003.

<sup>21</sup> California Department of Education website, Education Demographics Unit, <http://www.ed-data.k12.ca.us/welcome.asp>, accessed on August 6, 2009.

<sup>22</sup> California Department of Education website, Education Demographics Unit, <http://www.ed-data.k12.ca.us/welcome.asp>, accessed on August 7, 2009.

TABLE 6-2 **STUDENT-TO-TEACHER RATIOS FOR ALAMEDA COUNTY  
SCHOOL DISTRICTS FOR 2007-2008**

District	Student-to-Teacher Ratio (All Grades)
Alameda Unified	20.9
Albany City Unified	20.5
Berkeley Unified	18.3
Castro Valley Unified	21.6
Dublin Unified	20.7
Fremont Unified	21.3
Hayward Unified	20.8
Livermore Valley Joint Unified	21.3
Newark Unified	19.8
Oakland Unified	18.5
Piedmont City Unified	16.4
Pleasanton Unified	21.0
San Leandro Unified	20.2
San Lorenzo Unified	20.6
County Totals:	19.9
State Totals:	21.3

Source: California Department of Education website, Educational Demographics Unit,  
<http://www.ed-data.k12.ca.us/welcome.asp>, accessed on August 6, 2009.

**COUNTY OF ALAMEDA**  
**EDEN AREA GENERAL PLAN**  
 PUBLIC FACILITIES AND SERVICES

TABLE 6-3 **SUMMARY OF SLZUSD SCHOOL SITES**

<b>School</b>	<b>Acres<sup>a</sup></b>	<b>Year Built<sup>a</sup></b>	<b>Enrollment (2007-2008)<sup>b</sup></b>	<b>Capacity<sup>b</sup></b>
Bay Elementary	8.1	1955	533	585
Colonial Acres Elementary	9.8	1950	574	677
Corvalis Elementary	N/A	N/A	575	721
Dayton Elementary	N/A	N/A	469	568
Del Rey Elementary	9.8	1953	550	648
Grant Elementary	10.0	1953	384	480
Hesperian Elementary	8.9	1953	671	768
Hillside Elementary	6.1	1964	500	600
Lorenzo Manor Elementary	10.4	1953	624	685
Bohannon Middle	18.7	1949	921	990
Edendale Middle	17.9	1950	813	940
Washington Manor Middle	N/A	N/A	810	905
Arroyo High	38.5	1954	1,946	1,900
San Lorenzo High	27.8	1950	1,605	1,600
East Bay Arts High School	N/A	N/A	174	N/A
KIPP King Collegiate High School	N/A	N/A	98	N/A
Royal Sunset High (Continuation)	N/A	N/A	162	N/A

<sup>a</sup> Information from Lowell Shira, Assistant Superintendent of Business Services, January 31, 2003.

<sup>b</sup> California Department of Education website, Education Demographics Unit, <http://www.ed-data.k12.ca.us/welcome.asp>, accessed on August 6, 2009.

State law limits the amount that new development can be required to pay to mitigate impacts on schools. As of 2009, the SLZUSD collected \$2.97 per square foot from residential development to compensate for growth impacts, and \$0.47 per square foot from commercial development.<sup>23</sup> The District typically uses a student generation rate of 0.5 students per unit for all housing types.<sup>24</sup>

Along with the revenue resulting from developer fees, the District leases out six of its facilities. Information on each leased District site is shown on Table 6-4. The revenue the District earns from these sites is \$858,000 per year.<sup>25</sup>

## 2. Hayward Unified School District

The Hayward Unified School District (HUSD) serves elementary-aged children from the Eden Area and operates one school in the area covered by this General Plan: Cherryland Elementary. It also serves high school-aged children at the Hayward High School campus. Cherryland Elementary had 921 students enrolled in the 2003-04 school year and employed 48 teachers.

Additionally, Eden Gardens Elementary, located on Thayer Avenue, is attended by students from the Unincorporated Area. During the 2003-04 school year, Eden Gardens had an enrollment of 615 students and employed 30 teachers.<sup>26</sup>

---

<sup>23</sup> San Lorenzo Unified School District website, <http://sanlorenzousd.k12.ca.us/>, accessed on August 7, 2009.

<sup>24</sup> Personal email communication from Gloria Mohr, Business Services, SLZUSD, to Sue Beazley, DC&E, on February 24, 2005.

<sup>25</sup> Personal written communication from Gloria Mohr, San Lorenzo Unified School District, to Jose Moreno, DC&E, on April 25, 2006.

<sup>26</sup> California Department of Education, Educational Demographics Unit. Prepared April 1, 2005. <http://www.ed-data.k12.ca.us/welcome.asp>

TABLE 6-4 **SLZUSD LEASED SCHOOL SITES<sup>a</sup>**

SLZUSD Site	Address	Leased By
Lewelling School	750 Fargo Avenue, San Leandro	Bay Area Chinese Bible Church
El Portal School	2330 Pomar Vista, Castro Valley	Camelot Schools
Barrett School	2005 Via Barrett, San Lorenzo	Challenger Schools
Royal Sunset (partial)	20450 Royal Avenue, Hayward	Heart of the Bay Christian Center
Martin School	1000 Paseo Grande, San Lorenzo	Redwood Christian Schools
Fairmont Terrace School	2275 Arlington Drive, San Leandro	Seneca Center

<sup>a</sup> Communication via fax from Gloria Mohr, San Lorenzo Unified School District, to Justin Kosta, DC&E, on January 25, 2006.  
Source: San Lorenzo Unified School District.

*B. Goals, Policies and Actions*

**Goal PF-7     The County shall encourage school services that meet the educational needs of Eden Area residents.**

Policies

- P1. The County shall strive to work with school districts to provide a high level of public education to all residents in the Eden Area.
- P2. The County shall continue to provide the school districts with the opportunity to review large proposed residential developments and make recommendations about the need

for additional facilities based on student generation rates and existing school capacity.

- P3. Lands designated ‘School’ in the General Plan shall be zoned for both school and residential uses. The zoning designation shall call out a density of development that is comparable to surrounding land uses.
- P4. When a public school parcel is to be designated for a new public use or sold off for a private use, there should be a public input process to provide feedback to the County about the proposed new use of the parcel.
- P5. The County shall work with the Hayward Area Recreation and Park District (HARD) and the school districts serving the Eden Area to expand the joint use of school sites for parks and recreational facilities.
- P6. Safe and direct pedestrian and bicycle access to schools, including new sidewalks, bicycle paths, bike lanes on roadways and direct connections from residential areas shall be provided as funding becomes available and redevelopment opportunities occur.

Actions

- A1. Partner with the Hayward and San Lorenzo Unified School Districts, other appropriate agencies and civic organizations to allow the use of schools as community centers to provide a range of services, including child care.

## 6. SOLID WASTE AND RECYCLING

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling and composting. To help achieve this, the Act requires that each city and county prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.<sup>27</sup>

### A. *Background Information*<sup>28</sup>

Alameda County has set waste reduction standards over and above State requirements. Solid waste and recycling collection service and programming in the Eden Area is overseen by the Alameda County Waste Management Authority (ACWMA). Most of Alameda County's unincorporated residents are within either the Oro Loma Sanitary District (OLSD) or the Castro Valley Sanitary District (CVSD). Standards for solid waste reduction and the provision of services in the Eden Area are discussed in this section.

#### 1. Alameda County Waste Management Authority

The ACWMA is a public agency that was formed in 1976 by a Joint Exercise of Powers Agreement between Alameda County, the fourteen cities in the County, and OLSD and CVSD, the two sanitary districts that provide refuse and recycling collection services in the County.

---

<sup>27</sup> California Integrated Waste Management Board, Beyond 2000: California's Continuing Need for Landfills website, <http://www.ciwmb.ca.gov/landfills/needfor/default.htm>, accessed on February 25, 2005.

<sup>28</sup> *Bayside Groundwater Project Draft EIR*, 2001, pages 3.6-2 to 3.6-3, except where noted.

The ACWMA is responsible for preparing the countywide waste management element, which is called the *Alameda County Integrated Waste Management Plan* (Waste Management Plan) and was last revised as of March 2003. In Alameda County, waste reduction and disposal facilities that require solid waste facility permits must conform with the policies contained in the Waste Management Plan. In addition, ACWMA prepared the *Alameda County Source Reduction and Recycling Plan*, which identifies specific programs, objectives and strategies for the County to reach a 75 percent or higher diversion rate. The Plan is intended to serve as a guiding document together with the Waste Management Plan.<sup>29</sup>

## 2. Oro Loma Sanitary District

Solid waste disposal and recycling services in the Eden Area are mostly provided by the OLSD, which is a member agency of the ACWMA.<sup>30</sup> In addition to the covered portions of the Eden Area, OLSD serves the southwest portion of San Leandro and a limited number of customers in the northern portion of the City of Hayward. Individual parcels along the southern boundary with the City of Hayward are served by self-haul as described below. OLSD serves approximately 70,000 customers in its entire service area which generated about 43,100 tons of solid waste in 2003.<sup>31</sup>

Residential recycling diversion tonnage for the OLSD in 2000 was 4,926 tons.<sup>32</sup> Commercial recycling diversion tonnage is not available. The overall waste diversion rate for the OLSD was 71 percent in 2000, which far exceeds the State-mandated requirement of 50 percent. Table 6-5 shows the waste

---

<sup>29</sup> *Alameda County Source Reduction and Recycling Plan: Vision 2010: 75% and Beyond*, adopted by Alameda County Source Reduction And Recycling Board on January 9, 2003, and by Alameda County Waste Management Authority on January 29, 2003.

<sup>30</sup> Oro Loma Sanitary District does not collect information on solid waste specifically for the Eden Area.

<sup>31</sup> Downloaded from <http://www.stopwaste.org/lois/Vol2/OroLoma.pdf> on March 17, 2003.

<sup>32</sup> ACWMA Final Draft CoIWMP-Countywide Element, page III-6.

TABLE 6-5 **WASTE DISPOSAL AND DIVERSION, BY JURISDICTION**

<b>Jurisdiction</b>	<b>Total Disposal, 2003 Tons<sup>a</sup></b>	<b>Waste Diversion Rate<sup>b</sup></b>
OLSD	46,113	71% (2000)
Unincorporated Alameda County	12,232	65% (2000)

<sup>a</sup> Personal communication with Tom Padia, Recycling Director, Alameda County Waste Management Authority on February 2, 2005; and Alameda County Waste Management Authority, *Jurisdiction Quarterly Tonnages Report*, 2003, Run Date: February 7, 2005.

<sup>b</sup> Alameda County Waste Management Authority, *Countywide Integrated Waste Management Plan*, Adopted: February 26, 2003.

diversion rate for OLSD and the other districts that serve the Eden Area. The OLSD had the highest diversion rate of all of the member agencies in the ACWMA in 2000.<sup>33</sup> Waste collected within the OLSD is disposed of at the Altamont Landfill.<sup>34</sup>

The OLSD contracts with Waste Management of Alameda County for solid waste and recycling collection service. The OLSD has curbside collection for residential recycling. Recyclables are collected in wheeled recycling “carts” and the recycling is commingled (i.e., all acceptable recyclable materials are placed into one cart). All businesses in unincorporated Alameda County are eligible for OLSD’s commercial recycling services.<sup>35</sup>

<sup>33</sup> ACWMA Final Draft CoIWMP-Countywide Element, page III-8.

<sup>34</sup> Brown, Vence & Associates, *Alameda County Source Reduction and Recycling Board “5 Year Audit” Programmatic Overview and Evaluation*, April 2002, section 2-3.

<sup>35</sup> Oro Loma Sanitary District Commercial Recycling Services, [http://www.oroloma.org/services/garbage&recycling/recycling/commercial\\_services.html](http://www.oroloma.org/services/garbage&recycling/recycling/commercial_services.html), accessed on February 2, 2005.

### 3. Landfills

Operating landfills in Alameda County include the Altamont Landfill Resource Recovery Facility near Altamont Pass and the Vasco Road Landfill north of Livermore. The Tri-Cities Recycling and Disposal Facility in Fremont closed in December 2008. Waste that would have gone to the Tri-Cities facility is now disposed of at the Altamont landfill.<sup>36</sup> The countywide element projected that as of mid-2001, there was an estimated remaining capacity of 81 million tons for the three landfills in Alameda County. Table 6-6 indicates the remaining capacity at each of these landfills.

#### *B. Goals, Policies and Actions*

<b>Goal PF-8</b>	<b>Reduce the volume of solid waste generated in the Eden Area through reduction, recycling and resource conservation.</b>
------------------	--

#### Policies

- P1. The County should continue to work actively with the Alameda County Waste Management Authority to reduce the volume of solid waste generated in the Eden Area.
- P2. The County shall strive to meet or exceed the goals for reducing, recycling and safely storing waste stated in the *Alameda County Integrated Waste Management Plan*.
- P3. The County shall encourage local businesses to expand their recycling efforts and to reduce packaging of products manufactured in the Eden Area.

---

<sup>36</sup> Personal communication with Tom Padia, Recycling Director, Alameda County Waste Management Authority, February 2, 2005.

TABLE 6-6 ESTIMATED REMAINING CAPACITY AND DISPOSAL TONNAGE OF ALAMEDA COUNTY LANDFILLS

Landfill	Remaining Capacity (million tons) <sup>a</sup>	Expected Closure Date <sup>a</sup>	Average Tons per Day <sup>c</sup>	Maximum Tons per Day <sup>d</sup>
Altamont	67	2071	5,600	11,150
Tri-Cities Recycling & Disposal	less than 1	end of 2006 <sup>b</sup>	1,000	2,346
Vasco Road Sanitary Landfill	14	2037	1,600	2,518

<sup>a</sup> Alameda County Waste Management Authority, *Countywide Integrated Waste Management Plan*, Adopted: February 26, 2003, pages II-36 and III-16. Remaining capacity was as of mid-2001.

<sup>b</sup> Personal communication with Tom Padia, Recycling Director, Alameda County Waste Management Authority, February 2, 2005.

<sup>c</sup> EBMUD, *Bayside Groundwater Project Draft EIR*, 2001, page 3.6-5.

<sup>d</sup> CIWMB Landfill Compliance Study website, <http://www.ciwmb.ca.gov/landfills/complystudy/>, accessed on February 25, 2005.

- P4. Public buildings shall be designed or improved with on-site storage facilities for solid waste and recyclable materials.
- P5. The salvage and reuse of construction and demolition materials and debris shall be encouraged at all construction projects in the Eden Area.
- P6. Residential buildings should be designed or improved to accommodate an increase in the amount and type of recyclable materials based on the *Multi-Family Residential Guidelines and the Remodeling Guidelines* distributed by the Alameda County Waste Management Authority.
- P7. The County should work with residents, businesses and other members of the community, including architects, builders and contractors, to implement the County's Green

Building Ordinance for residential and non-residential projects.

- P8. The County should work to expand curbside recycling to all residential communities within the Eden area to ensure equal levels of service and divert solid waste from the landfill, in compliance with State law.

#### Actions

- A1. Adopt and implement an ordinance establishing minimum construction and demolition waste diversion rates for certain private construction projects.

## 7. WATER SERVICE

The Eden Area benefits from Alameda County's extensive water resources, which include streams, wetlands, water bodies, groundwater basins and the watersheds in which they are located. This section discusses how that water is distributed as well as efforts to reduce water consumption to conserve this vital resource.

### *A. Background Information*<sup>37</sup>

Water is provided to the entire Eden Area by the East Bay Municipal Utility District (EBMUD). EBMUD's water system serves approximately 1.3 million people in a 325-square-mile area.<sup>38</sup>

EBMUD has water rights for up to 325 million gallons per day (mgd) (997 acre feet) from the Mokelumne River, which is the source of almost all of

---

<sup>37</sup> East Bay Municipal Utility District. *Bayside Groundwater Project Draft EIR*, 2001, page 3.10-2, except where noted.

<sup>38</sup> EBMUD, *All About EBMUD*, no date, page 1. [http://www.ebmud.com/about\\_ebmud/publications/default.htm](http://www.ebmud.com/about_ebmud/publications/default.htm) accessed on February 22, 2005.

EBMUD's water supply. In normal years, EBMUD reservoirs in the East Bay receive an additional 30,000 acre feet (about 30 mgd) of water from local watershed runoff.<sup>39</sup>

In 2004, total water consumption in the District was 82,088 million gallons (224 mgd), up from 77,760 million gallons (213 mgd) in 2003. In 2004, the District served 378,251 customers, up from 377,094 in 2003.<sup>40</sup> EBMUD's Mokelumne River supply is sufficient during normal or wet years to accommodate current demand, but falls short during droughts.<sup>41</sup> The Water Supply Management Program found that during severe droughts EBMUD would be unable to meet the need for water without imposing extreme rationing measures in excess of 25 percent. EBMUD has since been exploring various options for securing future water supplies. Three of EBMUD's current projects address the need for additional supply during drought periods and two current projects improve water supply reliability.<sup>42</sup> Projects include exploring underground alternatives and desalination opportunities.<sup>43</sup> In addition, EBMUD has ongoing conservation and recycling efforts.

The majority of the Eden Area is located in the southern portion of EBMUD's Central Pressure Zone (PZ), which serves the East Bay Plain. Rising up to 100 feet above sea level, the Central PZ runs from Richmond in the north to San Lorenzo in the south. At higher elevations, the Eden Area is served by four additional Pressure Zones:

- ◆ Aqueduct (100-200 feet)
- ◆ Bayview (100-200 feet)
- ◆ Almond (200-350 feet)
- ◆ Proctor (350-500 feet)

---

<sup>39</sup> EBMUD, *All About EBMUD*, no date, page 2. [http://www.ebmud.com/about\\_ebmud/publications/default.htm](http://www.ebmud.com/about_ebmud/publications/default.htm), accessed on February 22, 2005.

<sup>40</sup> EBMUD, *Annual Report 2004*, 2004, page 14.

<sup>41</sup> EBMUD, *Annual Report 2004*, 2004, page 1.

<sup>42</sup> EBMUD website, [http://www.ebmud.com/water\\_&\\_environment/water\\_supply/current\\_projects/default.htm](http://www.ebmud.com/water_&_environment/water_supply/current_projects/default.htm), accessed on February 23, 2005.

<sup>43</sup> EBMUD, *Annual Report 2004*, 2004, page 5.

The Central PZ receives treated water from both the Orinda Water Treatment Plant and the Upper San Leandro WTP. Water at these facilities is stored in the Central Reservoir and the Dunsmuir Reservoir. From there, it flows via gravity throughout the EBMUD water transmission system.<sup>44</sup>

EBMUD's South Reservoir is located to the east of the Eden Area. The South Reservoir serves the southern portion of the Central PZ, including portions of the Eden Area. The Stanton Reservoir, located on the north side of Fairmont Drive, approximately one quarter mile west of Lake Chabot Road, is located at the northeast boundary of the Eden Area. Stanton Reservoir serves EBMUD's Proctor PZ; however, this reservoir is scheduled to be decommissioned and permanently removed from service this year (2005).

EBMUD's other major water distribution facilities located in or immediately adjacent to the Eden Area include the following:

- ◆ **El Portal Reservoir** serves the Upper San Leandro PZ with a capacity of 2.8 mgd.
- ◆ **Almond Pumping Plant** serves the Almond PZ with a capacity of 15.4 mgd.
- ◆ **Bayview Pumping Plant** serves the Bayview PZ with a capacity of 17.3 mgd.
- ◆ **John Rate Control Station** serves the Bayview PZ.
- ◆ **Oak Rate Control Station** serves the Central PZ.
- ◆ **Gramercy Regulator** serves the Almond PZ.

Additional facilities include EBMUD's transmission mains and right-of-way easements throughout the Eden Area. These facilities are critical to the operation of EBMUD's water supply and distribution system.<sup>45</sup>

---

<sup>44</sup> *San Lorenzo Village Center Specific Plan Draft EIR*, June 2003, page III-51.

<sup>45</sup> *Eden Area Redevelopment Plan EIR*, adopted in July 2000, pages 12-14 and 12-15.

*B. Goals, Policies and Actions*

<b>Goal PF-9</b>	<b>Ensure sufficient water supplies and facilities to serve the residents of the Eden Area in an efficient and financially-sound manner.</b>
------------------	--

Policies

- P1. The County shall support the efficient use of water through such means as conservation and recycling, and shall encourage the development of water recycling facilities to help meet the needs in the Eden Area.
- P2. The approval of new development shall be conditional on the availability of sufficient water for the project. Existing conditions should be considered in determining water availability.
- P3. Continue to support EBMUD's water conservation incentive and consumer outreach programs through partnerships and advocacy.
- P4. The County shall encourage the efficient use of water for non-residential landscape irrigation by supporting the use of recycled water.
- P5. The County shall require that new development meet the Landscape Water Conservation Guidelines adopted by the Alameda County Board of Supervisors as a condition of permit approval.
- P6. The County shall work with EBMUD to ensure effective management and long-term allocation of water resources, to develop a contingency plan for potential short-term water

shortages and to develop uniform water conservation programs.

- P7. The County shall maintain regular communication with EBMUD and the Hayward Water District about upcoming street improvement projects and shall provide the Districts the opportunity to combine water service improvements with roadway improvements to minimize costs and reduce disruption to traffic.
- P8. The County shall identify opportunities to conserve water in public buildings in the Eden Area.
- P9. The County shall strive to balance water supplies for existing residences with demands of new development.

Actions

- A1. Develop water conservation measures based on Best Management Practices from the California Urban Water Conservation Council.
- A2. Revise zoning and other County ordinances to enable the use of recycled water wherever feasible and permitted by law for irrigation needs in those locations where recycled water is available.
- A3. Implement water conservation guidelines for landscaping in Program 3.2.2 of the Resource Conservation Element of ROSA through site development review process.

## 8. WASTEWATER

Wastewater collection and treatment systems are crucial to maintaining clean and healthy water supplies. For this reason, wastewater service providers are highly regulated by federal and State agencies. Two sanitary districts provide services in the Eden Area. The services provided by these districts are discussed in this section.

### *A. Background Information*<sup>46</sup>

Wastewater treatment service in most of the Eden Area is provided by the OLSA, which serves Ashland, Cherryland, San Lorenzo and Hayward Acres. The OLSA collects wastewater flows from an approximately 12.8 square mile service area that includes the Eden Area. The OLSA treats flows collected from its service area, as well as from the CVSD service area.<sup>47</sup> In general, the capacities of the existing sewer facilities are considered adequate for the current level of development. The San Lorenzo treatment plant, located on Grant Avenue, handles most of the wastewater from the Eden Area. This plant has a peak dry weather treatment capacity of 20.0 mgd.<sup>48</sup> The average dry weather wastewater flow from the Eden Area is 15.0 million gallons per day.<sup>49</sup> In general, the capacities of the sewer facilities are considered adequate for the level of development for which the Eden Area is currently zoned and planned.<sup>50</sup>

---

<sup>46</sup> *Eden Area Redevelopment Plan EIR*, adopted in July 2000, pages 12-16 to 12-17, except where noted.

<sup>47</sup> *Eden Area Redevelopment Plan EIR*, adopted in July 2000, page 12-15.

<sup>48</sup> East Bay Municipal Utility District. *Urban Water Management Plan 2000*, February 2001, page 5-32.

<sup>49</sup> East Bay Municipal Utility District. *Urban Water Management Plan 2000*, February 2001, page 5-32.

<sup>50</sup> *Eden Area Redevelopment Plan EIR*, adopted in July 2000, page 12-17, except where noted.

OLSD has a maintenance and capital improvement plan that provides for the continuing rehabilitation and replacement of sewer pipelines and other facilities. The plan identifies a comprehensive, multi-million dollar set of improvements including manhole sealing, manhole raising to grade, private property repair, sewer grouting, sewer lining, sewer replacement and lower lateral replacement.

*B. Goals, Policies and Actions*

<b>Goal PF-10</b>	<b>Encourage the collection, treatment and disposal of wastewater in a safe, sanitary and environmentally acceptable manner.</b>
-------------------	--

Policies

- P1. The approval of new development shall be conditional on the availability of adequate, long-term capacity of wastewater treatment, conveyance and disposal sufficient to service the proposed development.
- P2. To the greatest extent feasible, upgrades to wastewater conveyance systems shall not disrupt the quality of life for Eden Area residents by significantly increasing noise, air pollution or traffic congestion.
- P3. All new development shall demonstrate to the County that the downstream sanitary sewer system is adequately sized and has sufficient capacity to accommodate anticipated sewage flows. If the downstream mains are found to be inadequate, the developer shall provide additional facilities to accept the additional sewage expected to be generated by the development.

- P4. The County shall ensure that OLSLD maintains an up-to-date, adequate plan and infrastructure for the delivery of wastewater collection, treatment and disposal in the Eden Area.
- P5. The County should encourage Oro Loma Sanitary District to find opportunities to expand the use of recycled water for industrial and irrigation purposes.

## 9. STORMWATER

Stormwater, the portion of rainfall that does not infiltrate into the soil, is a major concern for urban areas such as the Eden Area, where impervious surfaces limit the ability of rainwater to be absorbed into the ground. Stormwater runoff is also a significant source of pollution to the nation's waters. As stormwater runs off roads, yards and roofs, and down gutters into stormwater systems, it is contaminated by pollutants from motor vehicles, garbage, herbicides, garden fertilizers, rotting lawn clippings, legal and accidental spills or chemicals, and air pollution. Because of the potentially harmful impacts, pollution sources and treatment services are highly regulated. Stormwater management is discussed in this Element while flooding hazards are discussed in the Public Safety Element.

### *A. Background Information*

The Flood Control and Water Conservation District (District), which is governed by the Alameda County Board of Supervisors, owns and manages most storm drains in the Eden Area and ensures that they are designed and con-

structed to meet existing and projected needs for the area to avoid flooding.<sup>51</sup> The District works with cities throughout the county in a collaboration known as the Alameda Countywide Clean Water Program.

In the Eden Area, stormwater runoff that does not infiltrate into the subsurface is directed into a constructed stormwater drainage system consisting of crowned streets, curbside gutters, drainage inlets, subsurface pipes, and engineered canals and creeks. Surface water runoff drains to Estudillo Canal (located in San Leandro), San Lorenzo Creek, or Bockman Canal, and eventually to the San Francisco Bay.

San Lorenzo Creek is part of the San Lorenzo Creek Watershed, which encompasses approximately 48 square miles and seven major creeks. The watershed begins in lightly developed hills east of Castro Valley. The watershed covers parts of north Hayward and San Lorenzo and is the second largest watershed in Alameda County. Just south of Interstate 580 near Crow Canyon Road, the watershed enters a highly urbanized area.<sup>52</sup>

Storm drainage in the Eden Area proper flows into two channels: San Lorenzo Creek and Bockman Canal. San Lorenzo Creek begins at the top of the Dublin grade and runs from east to west through Castro Valley and the Eden Area. In general, the creeks throughout the San Lorenzo Creek Watershed are in a natural state. However, from Foothill Boulevard to the San Francisco Bay, San Lorenzo Creek exists primarily as a rectangular-concrete flood control channel.

Bockman Canal is considered its own watershed which contains a series of storm drains and canals that drain western San Lorenzo. The canal itself runs east to west through San Lorenzo. Like the lower section of San Lorenzo

---

<sup>51</sup> Portions of the Eden Area subject to inundation from a 100-year flood are discussed in the Public Safety Element.

<sup>52</sup> <http://www.baysavers.org/Programs/SLZ/tour.htm>. Personal communication with Emmanuel da Costa, Alameda County Flood Control & Water Conservation District to Sarah Pulleyblank Patrick on April 5, 2005.

Creek, Bockman Canal is concrete lined and tidal west of the westernmost Union Pacific railroad tracks.<sup>53</sup>

Federal and State water quality regulations apply to development projects that may adversely affect the quality of surface waters or groundwater through the discharge of wastewater and stormwater. Section 303 of the federal Clean Water Act and the State's Porter-Cologne Water Quality Control Act establish water quality objectives for all waters in the State. These objectives are implemented locally through Water Quality Control Plans and the National Pollutant Discharge Elimination System (NPDES) permitting program.

Unincorporated Alameda County is subject to the Alameda Countywide NPDES Municipal Stormwater Permit,<sup>54</sup> issued by the California Regional Water Quality Control Board. The permit assigns responsibility to the County for municipal storm drain systems and watercourses in the unincorporated areas. The County must meet the requirements of the permit, which include submitting a *Stormwater Quality Management Plan* (SWQMP) with the goal of reducing the discharge of pollutants in stormwater to the maximum extent possible.

In Alameda County, development projects must comply with the NPDES permit. Compliance measures include construction best management practices (BMPs), erosion control standards, stormwater treatment, detainment and infiltration measures, as well as quantity controls. The Alameda Countywide Clean Water Program (ACCWP) administers the County's NPDES permit. The ACCWP is a consortium of 17 member agencies in Alameda County.

The Alameda County Public Works Department, along with the other agencies participating in the ACCWP, has adopted the SWQMP, which describes the ACCWP's approach to reducing stormwater pollution in the County.

---

<sup>53</sup> <http://www.museumca.org/creeks/28-RescBockman.html>

<sup>54</sup> NPDES Permit No. CAS0029831.

The Plan covers fiscal year 2001-2002 through 2007-2008 and is intended to serve as the basis of the ACCWP's third stormwater discharge permit from the Regional Water Quality Control Board.<sup>55</sup> The SWQMP includes performance standards that define a large part of what member agencies must do to implement the Plan and comply with the NPDES permit.<sup>56</sup>

*B. Goals, Policies and Actions*

<p><b>Goal PF-11</b>    <b>Collect, store and dispose of stormwater in ways that are safe, sanitary and environmentally acceptable.</b></p>
---

Policies

- P1. Stormwater infrastructure shall be maintained in good condition.
- P2. New development projects should be designed to preserve permeable surfaces, minimize the amount of impervious surface and reduce stormwater impacts. Specific strategies that should be considered include permeable paving materials, green roofs and swales.
- P3. Local storm drainage improvements should be designed to carry appropriate design-year flows resulting from build out of the General Plan.

---

<sup>55</sup> ACCWP, *Stormwater Quality Management Plan: July 2001-June 2008*, 2003, page 1-1.

<sup>56</sup> ACCWP, *Stormwater Quality Management Plan: July 2001-June 2008*, 2003, page 5-1.

- P4. The stormwater collection system for the Eden Area should be planned and managed in a logical, timely and appropriate manner.
- P5. Design of storm drainage facilities shall be consistent with the SWQMP and NPDES requirements.
- P6. A watershed management approach should be used in addressing, planning and managing stormwater issues.
- P7. Natural or nonstructural stormwater drainage systems shall be encouraged to preserve and enhance the natural features of the Eden Area.
- P8. Installation or repair of stormwater collection systems should occur concurrently with the repair of roadways to maximize efficiency.
- P9. The County shall apply the Alameda County Clean Water Program's conditions of approval as development standards for new construction.
- P10. The County shall protect surface and groundwater resources by implementing the water quality policies in the County-wide Resource and Conservation, Open Space and Agriculture Element (ROSA).
- P11. The development of uses such as automobile dismantlers, waste disposal facilities, industries utilizing toxic chemicals, and other potentially polluting substances in areas near creeks shall be prohibited when polluting substances could come in contact with flood waters, permanently or seasonally high groundwater, flowing stream or creek waters, or reservoir waters.

- P12. The County shall encourage new development to incorporate the measures contained in the Bay Friendly Landscaping guidance document developed by StopWaste.org.

Actions

- A1. Update the SWQMP and the capital improvement plan for storm drainage facilities as needed in order to accurately evaluate the storm drainage flows and determine appropriate facility improvements with the General Plan.
- A2. Review County policies, implementation measures, legal authority provided in erosion control and stormwater management and discharge control ordinances that help preserve and enhance water quality and reduce erosion on a regular basis to ensure that they are consistent with the best management practices recommended by the Alameda County-wide Clean Water program.
- A3. Implement pollution prevention, pollutant source control and treatment Best Management Practices (BMPs) recommended by the Alameda Countywide Cleanwater Program. Such methods may include the establishment of small collection facilities located at, or close to, the point where water initially meets the ground in order to minimize the transport of urban runoff and pollutants off-site and into the stormwater system.
- A4. Develop standards to encourage new development to minimize the amount of newly constructed impervious surfaces, maximize the construction of on-site infiltration of runoff and increase on-site retention of run-off.
- A5. Continue to participate in the Bay Area Stormwater Management Agencies Association in order to promote regional

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
PUBLIC FACILITIES AND SERVICES

consistency and to facilitate efficient use of public resources in stormwater management.

## 7 NOISE ELEMENT

State law requires a Noise Element as part of all city and county General Plans. The Noise Element provides a systematic approach to measuring and modeling noise, establishing noise standards, controlling major noise sources, and planning for the regulation of noise. This Noise Element provides background information about evaluating the effects of noise on communities and the current regulatory framework. It also presents baseline information for the existing noise environment in the Eden Area and Alameda County along with goals, policies and actions for controlling noise in existing and future development.

### *A. Background Information*

This section provides a brief discussion of acoustical fundamentals to assist the reader in understanding the current noise environment of the Eden Area. Current noise policies regulating development in the area are discussed. A description of the existing noise environment, based on the results of a noise monitoring survey conducted by Illingworth & Rodkin, Inc., concludes the section.

#### **1. Understanding Noise**

This section explains how noise is measured and gives an overview of the potential effects from excessive noise. An explanation of how noise affects various land uses is also provided.

##### **a. Measurement of Noise**

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its pitch or its loudness. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with

the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to gauge noise in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 7-1.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 7-2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the sum of all the time-varying events. This energy-equivalent sound/noise descriptor is called Equivalent Noise Level (Leq). The most common averaging period is hourly, but Leq can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about  $\pm 1$  dBA. Various computer models are used to predict environmental noise levels from sources such as roadways and airports.

TABLE 7-1 **DEFINITIONS OF ACOUSTICAL TERMS**

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L01, L10, L50, L90	The A-weighted noise levels that are exceeded 1%, 10% and 90% of the time during the measurement period.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Day/Night Noise Level, L <sub>dn</sub>	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
L <sub>max</sub> , L <sub>min</sub>	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
NOISE ELEMENT

TABLE 7-2 TYPICAL SOUND LEVELS

Noise Generators (Distance from Noise Source)	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Impression
	140		
Civil defense siren (100 feet)	130		
Jet take-off (200 feet)	120		Pain threshold
	110	Rock music concert	
Diesel pile driver (100 feet)	100		Very loud
Freight cars (50 feet)	90	Boiler room Printing press plant	
Pneumatic drill (50 feet)	80	In kitchen with garbage disposal running	Moderately loud
Freeway (100 feet)	70		
Vacuum cleaner (10 feet)	60	Data processing center	
Light traffic (100 feet)			
Large transformer (200 feet)	50	Department store	
	40	Private business office	Quiet
Soft whisper (5 feet)	30	Quiet bedroom	
	20	Recording studio	
	10		Threshold of hearing

The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about  $\pm 1$  to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level, CNEL, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. – 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. – 7:00 a.m.) noise levels. The Day/Night Average Sound Level,  $L_{dn}$ , is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

b. Effects of Noise

There are numerous short and long term effects of noise on communities. These include hearing loss, sleep and speech interference and annoyance.

i. *Hearing Loss*

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has produced a noise exposure standard, which is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

*ii. Sleep and Speech Interference*

The threshold for speech interference indoors is approximately 45 dBA if the noise is steady or above 55 dBA if the noise fluctuates. Outdoors, the threshold is approximately 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA) and fluctuating noise levels above approximately 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA  $L_{dn}$ . These standards are designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses.

Typical structural attenuation is 12 to 17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for newer homes. Sleep and speech interference is therefore possible when exterior noise levels are between 57 to 62 dBA  $L_{dn}$  with open windows and between 65 to 70 dBA  $L_{dn}$  if the windows are closed. Levels of 55 to 60 dBA are common along collector streets and secondary arterials, while 65 to 70 dBA is a typical value for a major arterial. Levels of 75 to 80 dBA are normal noise levels for development immediately fronting on a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways may have operable windows; those facing major roadways and freeways typically need specially designed glass installed in window frames.

*iii. Annoyance*

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The  $L_{dn}$  as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed.

There continues to be disagreement about the relative annoyance of noise from aircrafts and roadways. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 55 dBA

$L_{dn}$ . At an  $L_{dn}$  of about 60 dBA, approximately two percent of the population is highly annoyed. When the  $L_{dn}$  increases to 70 dBA, the percentage of the population highly annoyed increases to about 12 percent of the population. There is, therefore, an increase of about 1 percent per dBA between an  $L_{dn}$  of 60 to 70 dBA. Between an  $L_{dn}$  of 70 to 80 dBA, each decibel increase results in about a two percent increase in population that is highly annoyed. People appear to respond more adversely to aircraft noise. When the  $L_{dn}$  is 60 dBA, approximately ten percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about two percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a three percent increase in the percentage of the population highly annoyed.

c. Land Use Compatibility

Different types of land uses are considered to have various sensitivities to noise based on the types of activities that are expected to take place in those uses. The State of California Office of Noise Control (ONC) has developed a noise/land use compatibility matrix, which shows noise standards for various land use categories. This matrix is shown in Figure 7-1. The noise standards are intended to provide guidelines for the development of municipal noise elements. These basic guidelines may be tailored to reflect the existing noise and land use characteristics of a particular community.

Land uses deemed noise sensitive by ONC include schools, hospitals, rest homes, long-term care and mental care facilities. Many jurisdictions also consider residential uses particularly noise sensitive because families and individuals expect to use time in the home for rest and relaxation, and noise can interfere with those activities. Some variability in standards for noise sensitivity may apply to different densities of residential development, and single-family uses are frequently considered the most sensitive. Jurisdictions may identify other uses as noise sensitive such as churches, libraries, day care centers and parks.

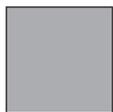
Land Use Category	Exterior Noise Exposure (L <sub>dn</sub> )					
	55	60	65	70	75	80
Single-Family Residential						
Multi-Family Residential, Hotels, and Motels		(a)				
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						

(a) Residential development sites exposed to noise levels exceeding 60 L<sub>dn</sub> shall be analyzed following protocols in Appendix Chapter 12, Section 1208A, Sound Transmission Control, California Building Code.



**Normally Acceptable**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.



**Conditionally Acceptable**

Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.



**Unacceptable**

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

**FIGURE 7-1**

**LAND USE COMPATIBILITY FOR  
COMMUNITY NOISE ENVIRONMENT**

Land uses that are less sensitive to noise include some office and retail developments. There is a range of insensitive noise receptors which generate significant noise levels or where human occupancy is typically low. Examples of insensitive uses include industrial and manufacturing uses, utilities, agriculture, vacant land, parking lots, salvage yards and transit terminals.

## **2. Regulatory Framework**

In addition to the policies in this Noise Element, community noise within the unincorporated Eden Area of Alameda County is currently governed by the standards established in the Alameda County Noise Regulations. Other noise policies that affect development in the area are those established by the California Noise Insulation Standards, the California Environmental Quality Act (CEQA) and the Federal Highway Administration (FHWA). The California Department of Transportation (Caltrans) regulates highway noise and the State of California and the Federal Aviation Administration (FAA) control airport noise. A review of these noise guidelines and regulations follows.

### **a. Alameda County General Plan Noise Element**

The Alameda County Noise Element contains goals, objectives and implementation programs for the entire county to provide its residents with an environment that is free from excessive noise, and promotes compatibility of land uses with respect to noise. The County-wide Noise Element does not explicitly state what the acceptable outdoor noise level is for the backyards of single-family homes or common outdoor spaces of multi-family housing projects. However, the County-wide Noise Element recognizes the Federal Environmental Protection Agency (EPA) noise level standards for residential land uses. These standards are an exterior  $L_{dn}$  of 55 dBA and an interior  $L_{dn}$  of 45 dBA. The Noise Element also references noise and land use compatibility standards developed by an Association of Bay Area Governments (ABAG) sponsored study. The ABAG study establishes a CNEL of 65 dBA or less to result in little noise impact on residential land uses, levels between 65 and 70

to produce moderate impacts, and a CNEL above 70 dBA to cause significant impacts.<sup>1</sup>

b. Alameda County Noise Ordinance

Section 6.60.040 of the Alameda County Noise Ordinance establishes regulations and standards for the generation of noise. The regulations identify exterior noise levels affecting residential or commercial land uses. Noise level standards are set forth in Table 7-3A and 7-3B.

c. Alameda County Building Code

The Alameda County Building Code (Building Code) is consistent with the California Building Code, which only regulates average interior noise levels within multi-family homes. Regulation of interior sound levels within single-family homes is typically addressed by City or County General Plans and noise ordinances.

The Building Code uses sound transmission classes and impact insulation classes to rate the effects of noise within a building. Sound transmission class (STC) is a single-number rating used to compare walls, floor-ceiling assemblies and doors for their sound-insulating properties with respect to speech and small household appliance noise. The STC is derived from laboratory measurements of sound transmission loss. Impact insulation class (IIC) is a single-number rating used to compare floor-ceiling assemblies in providing reduction of impact-generated sounds such as footsteps. The IIC is derived from laboratory measurements of impact sound pressure level. Both STC and IIC may be tested outside of the laboratory in the field, but such tests are less accurate and thus Alameda County has imposed more stringent standards for field tested STC and IIC standards.<sup>2</sup>

---

<sup>1</sup> Alameda County Planning Commission, *Noise Element of the Alameda County General Plan*, Adopted July 31, 1975, amended May 5, 1994, pages 4-5 through 4-7.

<sup>2</sup> Alameda County Building Code 15.08.030, Volume 1 Appendix Chapter 12 Division IIA, Section 1208 A.

TABLE 7-3A **NON-COMMERCIAL<sup>a</sup> NOISE ORDINANCE LIMITS**

Category	Cumulative Minutes in 1-Hour Period	Daytime, dBA (7 a.m. – 10 p.m.)	Nighttime, dBA (10 p.m. – 7 a.m.)
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65

<sup>a</sup> Non-commercial uses include single- or multi-family residential, school, hospital, church or public library properties.

Source: Noise Ordinance Table 6.60.040A.

TABLE 7-3B **COMMERCIAL NOISE ORDINANCE LIMITS**

Category	Cumulative Minutes in 1-Hour Period	Daytime, dBA (7 a.m. – 10 p.m.)	Nighttime, dBA (10 p.m. – 7 a.m.)
1	30	65	60
2	15	70	65
3	5	75	70
4	1	80	75
5	0	85	80

Source: Noise Ordinance Table 6.60.040B.

Building Code Title 15.08.030, Volume 1 Appendix Chapter 12 Division IIA, Sections 1208 -1209 and 3502-3504 provide specifications for sound insulation and standards for noise levels inside and outside of new hotels, motels dormitories, apartment houses and other attached dwellings. The Alameda County

Building Code requires that airborne sound insulation be sufficient to meet a STC of 50, 45 if field tested. Impact sound insulation must be sufficient to meet an IIC of 50, 45 if field tested.

d. California Environmental Quality Act Guidelines

The California Environmental Quality Act (CEQA) has established guidelines to evaluate whether noise from a proposed project is significant. As part of compliance with CEQA, applicants must determine if there is a significant impact with respect to the following:

- ◆ Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan, Noise Ordinance or applicable standards of other agencies.
- ◆ A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- ◆ A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

CEQA does not define a “substantial noise level increase.”

e. California Insulation Standards

Noise insulation standards were officially adopted by the California Commission of Housing and Community Development in 1974. In November 1988, the Building Standards Commission approved revisions to these standards (Title 24, Part 2, California Code of Regulations). The standards currently reside in Appendix Chapter 12 of the California Building Code and apply to all new construction in the State of California.

Title 24 requires that interior noise levels attributable to exterior sources must not exceed 45 dB in any habitable room. Additionally, the code specifies that multi-family residential buildings or structures that will be located within exterior CNEL (or  $L_{dn}$ ) contours of 60 dB or greater of sources such as a freeway, expressway, parkway, major street, thoroughfare, airport, rail line, rapid transit line or industrial noise source shall require an acoustical analysis

showing that the building has been designed to limit intruding noise to an interior CNEL (or  $L_{dn}$ ) of 45 dB. Worst case noise levels must be used to determine compliance. Predictions must also be made for future noise levels for a period of at least ten years from the time of building permit application.

f. Federal Highway Administration and Caltrans Policies

The Federal Highway Administration (FHWA) provides procedures and criteria for noise assessment studies for federal highway projects. It requires that noise abatement measures be considered on all major transportation projects if the project will cause a significant increase in noise levels, or if projected noise levels approach or exceed the noise abatement criteria level for activities occurring on adjacent lands. The California Department of Transportation (Caltrans) utilizes similar procedures and criteria.

The FHWA Noise Abatement Criteria for various land use ratings are shown in Table 7-4. These noise criteria are assigned to both exterior and interior activities. The FHWA identifies a traffic noise impact when the predicted traffic noise levels approach or exceed the noise abatement criteria. If these criteria sound levels are predicted to be approached or exceeded during the noisiest 1-hour period, noise abatement measures must be considered and, if found to be reasonable and feasible, they must be incorporated into project design. Following the Caltrans protocol, a traffic noise impact will occur when predicted noise levels approach or exceed criteria sound levels within 1 dBA (e.g. 66 dBA for Category B).

g. Aircraft Noise Regulations

The Federal Aviation Administration (FAA) and the State of California Airport Noise Standards have established the Yearly Average CNEL as the noise standard by which airport noise and land compatibility is judged. The agencies have identified the 65 dBA CNEL contour for airport operations as the Noise Impact Boundary. Within this boundary airport operators are required to ensure that all land uses are compatible with the aircraft noise environment or the operator must provide noise mitigation or secure a variance from the governing agencies. Under most circumstances residences are considered to

TABLE 7-4 FEDERAL NOISE ABATEMENT CRITERIA

Rank	A-Weighted Sound Level, dBA	Suitable Locations
A	57 exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to serve its intended purpose.
B	67 exterior	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries and hospitals.
C	72 exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

Source: Federal Highway Administration, 1982.

be an incompatible land use within the 65 dBA CNEL noise contour. The City of Hayward’s Ordinance 91-16 (Airport Noise Ordinance) regulates the noise levels resulting from aircraft operations at the Hayward Executive Airport and provides noise abatement policies and procedures restricting flight paths to abate noise from aircraft operations.

### 3. Existing Noise Environment

The most pervasive and significant noise source in the Eden Area is vehicular traffic noise on streets and highways. Interstates 880 and 580 and Highway 238 carry the highest volumes of traffic and are the noisiest roadway corridors, though large arterials and collectors, such as Hesperian Boulevard, Grant Avenue and East 14<sup>th</sup> Street/Mission Boulevard, are also significant contributors.

Rail operations are also a significant source of noise. There are three rail lines in the Eden Area, all of which are now owned by Union Pacific Railroad (UPRR). The westernmost set of UPRR tracks (Coast Subdivision) separates the Grant Avenue Industrial Area and the San Lorenzo community. The UPRR Niles Subdivision runs between Hathaway and Meekland Avenues, through Ashland and along the border between San Lorenzo and Cherryland. These two lines carry mostly freight traffic as well as the Capital Corridor passenger service. The third railroad line is the UPRR Oakland Subdivision (the former Western Pacific Railroad), which runs along Western Boulevard. This UPRR track very rarely carries freight, however it is still a source of noise through Ashland and Cherryland.

The Bay Area Rapid Transit (BART) system runs on elevated tracks above Western Boulevard and the third UPRR set of tracks. The elevated BART tracks are not buffered to reduce noise. Thus, the frequent commuter trains produce a significant amount of noise that affects the surrounding residential and commercial uses.

There are two sources of aircraft noise in the Eden Area: the Hayward Executive Airport and the Oakland International Airport. The former is primarily a general aviation aircraft facility. Noise issues related to its operations are described in the *Hayward Executive Airport Master Plan Draft Environmental Impact Report*, April 23, 2001. Noise measurements conducted in support of the *Airport Master Plan EIR* indicate maximum instantaneous noise levels of about 70 to 80 dBA at locations to the northwest of the airport runways, near Skywest Public Golf Course and the adjacent residences in the San Lorenzo portion of the Eden Area.

To the south of the Hayward Executive Airport, noise levels during the monitoring survey were dominated by vehicular traffic on Hesperian Boulevard. Individual propeller aircraft and turbo prop aircraft operations produce maximum noise levels of about 60 to 68 dBA in the Hayward Mobile Homes Estates. A noise attenuation berm is located at the south end of the airport (runway 28L). Noise studies performed during preparation of the *Airport*

*Master Plan* indicate the berm effectively reduces noise from aircraft departing the airport.

The noise generated from aircraft using the Oakland International Airport are regulated by the FAA and are outside of the jurisdiction and influence of local governments. Several flight paths from this airport pass over the Eden Area. The FAA has defined a noise contour to characterize the airport's noise impact area, using the State of California's 65 decibel (dB) Community Noise Equivalent Level (CNEL). The 65 dB CNEL contour is an annual average noise measurement that is continually validated by noise abatement specialists and acoustical consultants. Homes located within the airport's 65 db CNEL are eligible to participate in the airport's sound insulation program. The Oakland International Airport has a sound insulation program for noise abatement within this contour which includes five schools in San Leandro and San Lorenzo. Additionally, the FAA established the Oakland Airport Community Noise Management Forum, consisting of representatives from local communities, airport staff, airlines and the FAA, to address community noise concerns and make recommendations on noise-related issues at the airport.<sup>3</sup>

New development in areas surrounding the Hayward Executive Airport and the Oakland International Airport is subject to compatibility criteria established by the Alameda County Airport Land Use Commission (ALUC). ALUC develops land use policies and plans to minimize exposure to excessive noise and safety hazards for new development, and to ensure that incompatible development does not occur on lands surrounding airports.

Other sources of noise within the Eden Area include stationary sources associated with industrial and commercial operations. Noise is generated in industrial areas from the regular operation of equipment such as generators, fans, chillers, compressors, boilers, pumps and air conditioning systems,

---

<sup>3</sup> Oakland International Airport website page on noise and environmental concerns, [http://www.oaklandairport.com/noise\\_environment.shtml](http://www.oaklandairport.com/noise_environment.shtml), accessed on March 29, 2005.

which may run for 24 hours a day. Other industrial sources of noise such as horns, buzzers and loading activities may be intermittent. Industrial noise sources are of greatest concern when they are close to residential areas, schools, hospitals and other noise-sensitive land uses since the combination of transportation and industrial noise sources have the potential for producing significant noise impacts.

Other significant stationary sources of noise include gas stations, car washes, fire stations, commercial mechanical equipment, child care centers and schools. Although these sources do not usually produce sound levels as great as those from industrial uses, they are often located near residential or other noise sensitive uses and thus can be sources of irritation and complaints.

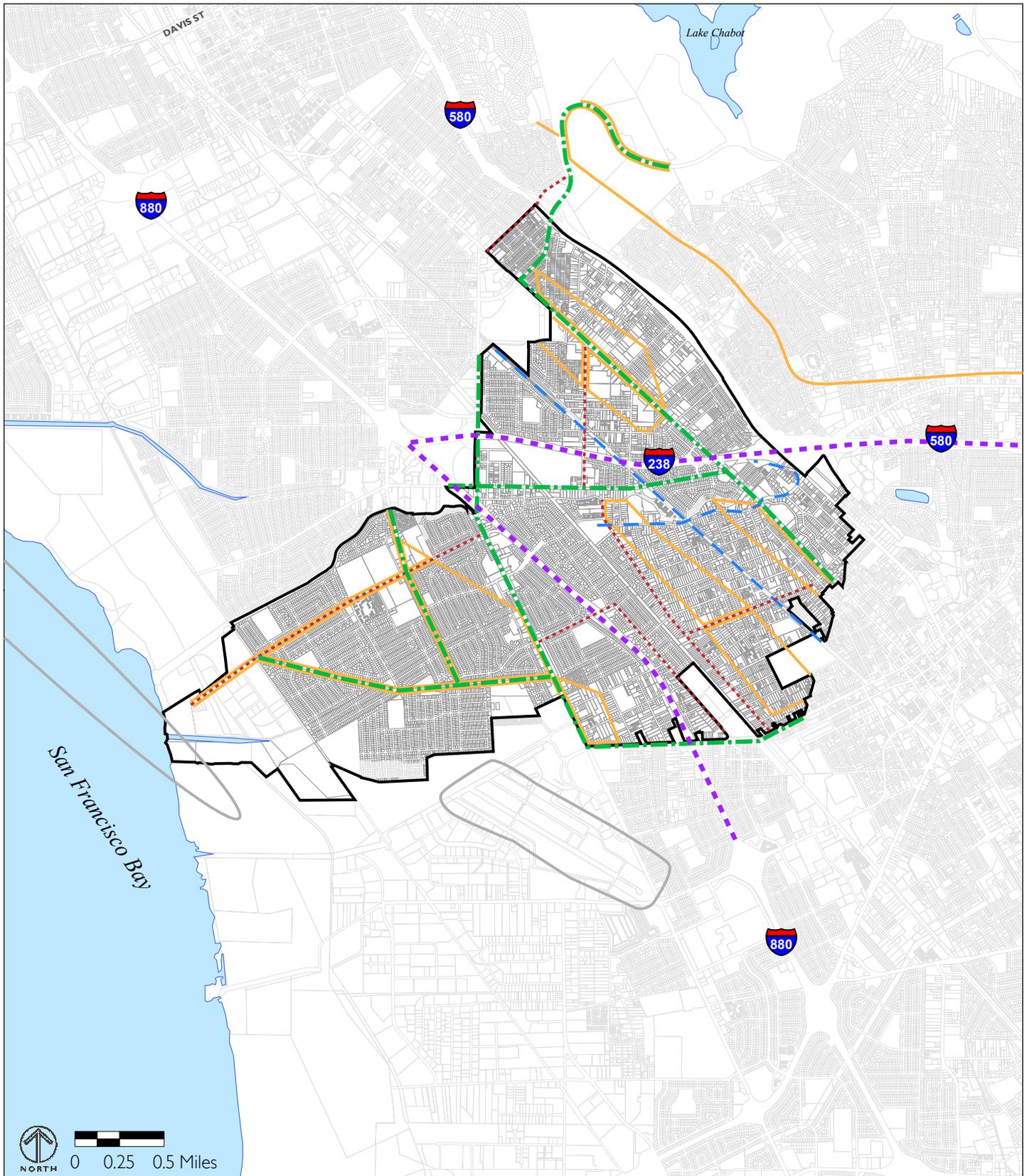
In order to quantify local noise levels for this Noise Element, noise levels were monitored in the Eden Area along major transportation corridors, including BART, the freeways and railroads. Long-term noise measurements (over a continuous 24-hour period) were made at seven locations selected to represent noise levels along major thoroughfares, highways, railroad lines and BART. The results of these measurements are shown in Table 7-5. The 24-hour day/night average noise level ( $L_{dn}$ ) is shown for each of the long-term meters. The equivalent sound level ( $L_{eq}$ ) during the daytime and nighttime as well as selected statistical descriptors representing near maximum noise levels ( $L_{01}$  and  $L_{10}$ ), median noise levels ( $L_{50}$ ) and background noise levels ( $L_{90}$ ) are provided to describe the noise levels that occurred during the measurement.

Existing noise contours in the Eden Area due to transportation related noise sources are presented in Figure 7-2. Noise monitoring locations are shown in Figure 7-3. The noise contour map shows areas exposed to a noise level of greater than 60 dB  $L_{dn}$  and the source noise levels along major roadways at a distance of 50 feet from the roadway. The source noise levels are depicted in 5 dB increments.

Table 7-5 **NOISE MEASUREMENT SUMMARY**

Location	Average Levels	Sound Levels, dBA					L <sub>dn</sub>	Primary Noise Source
		L <sub>01</sub>	L <sub>10</sub>	L <sub>eq</sub>	L <sub>50</sub>	L <sub>90</sub>		
LT-1: At the corner of Grant Avenue and Via Nueva, approximately 35 ft. from the centerline of Grant Avenue.	Day	78	71	68	64	56	72	Traffic on Grant Avenue
	Night	78	68	65	57	49		
LT-2: In front of # 15831 Hesperian Boulevard, 50 feet from the center of the near lane of Hesperian Boulevard.	Day	78	73	70	67	59	72	Traffic on Hesperian Blvd.
	Night	73	68	64	60	56		
LT-3: In the rear yard of # 15934 Via Descanso, approximately 20 ft. from the I-880 soundwall.	Day	70	64	62	61	59	67	Traffic on I-880
	Night	66	62	60	59	56		
LT-4: At the corner of Meekland and Poplar Avenues: approx. 45 ft. from the centerline of Meekland Ave.	Day	74	68	65	62	57	67	Traffic on Meekland Avenue
	Night	69	62	59	56	53		
LT-5: Galway Drive adjacent to Hwy. 238.	Day	71	69	67	67	65	72	Traffic on Hwy 238
	Night	70	68	65	64	60		
LT-6: 60 feet from the centerline of the BART tracks – Adjacent to the UPRR line. Near the Ashland Avenue over-crossing.	Day	77	66	65	60	57	69	BART Rail Traffic
	Night	71	60	60	55	52		
LT-7: Foothill Blvd. between 166 <sup>th</sup> and 167 <sup>th</sup> Streets, adjacent to I-580.	Day	73	72	70	70	68	72	Traffic on I-580
	Night	69	66	64	63	59		

Source: Illingworth & Rodkin, 2003.



Source: Illingworth and Rodkin, 2003

**Contours**

- Study Area Boundary
- 60 dBA Ldn, Road and Rail
- 65 dBA CNEL, Oakland International and Hayward Executive Airports

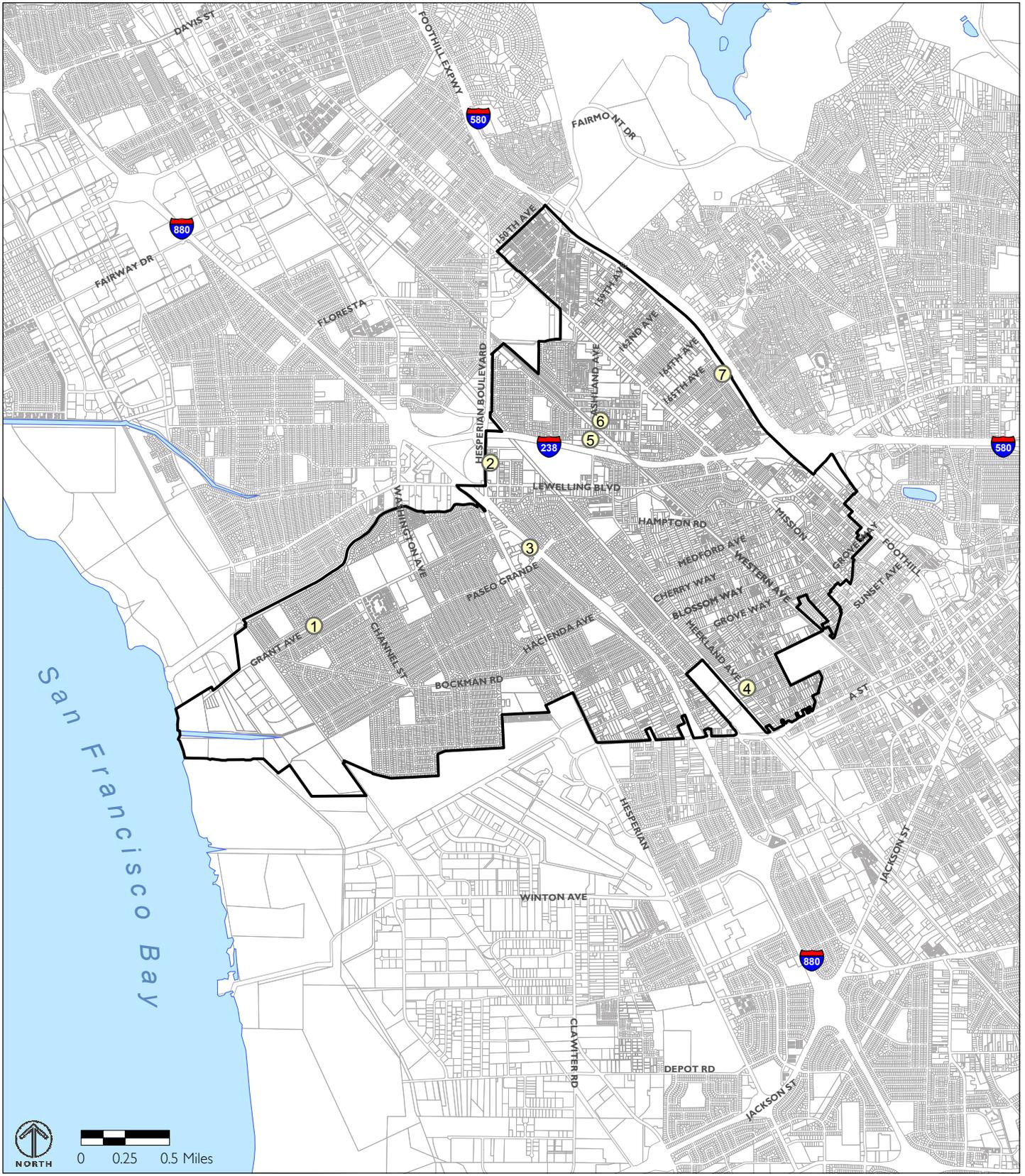
**Roadway Coding (Ldn 50ft from rdwy)**

- 60 to 64 dBA
- 64 to 69 dBA
- 70 to 75 dBA
- Above 75 dBA

**FIGURE 7-2**

**NOISE EXPOSURE CONTOURS**

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN



Source: Illingworth and Rodkin, Inc. 2003

- ① Grant Avenue and Via Nueva
- ② I5831 Hesperian Boulevard
- ③ I5934 Via Descanso (rear yard)
- ④ Meekland Avenue and Poplar Avenue
- ⑤ Galway Drive adjacent to Highway 238
- ⑥ BART tracks, adjacent to the UPRR line near Ashland Avenue over-crossing
- ⑦ Foothill Boulevard between I66th and I67th Streets, adjacent to I-580

FIGURE 7-3

**NOISE MONITORING LOCATIONS**

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN

*B. Goals, Policies and Actions*

<b>Goal N-1</b>	<b>Protect citizens from excessive noise.</b>
-----------------	---

Policies

- P1. New land uses shall not be located in areas where either indoor or outdoor noise levels exceed those considered normally acceptable for each land use, as shown in Figure 7-1, unless measures can be implemented to reduce noise to acceptable levels.
- P2. New single-family residential development shall maintain a standard of 60 dB L<sub>dn</sub> maximum (day/night average noise level) for exterior noise in private use areas.
- P3. Existing residential development sites exposed to noise levels exceeding 60 dB L<sub>dn</sub> shall be analyzed following protocols in Appendix Chapter 12, Section 1208A, Sound Transmission Control, California Building Code.
- P4. New multi-family residential developments shall be designed to maintain a standard of 65 dB L<sub>dn</sub> maximum in community outdoor recreation areas. Balconies shall not be considered outdoor recreation areas, thus no noise standards shall apply to these areas.
- P5. All new residential land uses shall be designed to maintain a standard of 45 dB L<sub>dn</sub> maximum in building interiors.
- P6. New residential development affected by noise from railroad, BART, freeway or aircraft operations shall be designed to limit typical maximum instantaneous noise levels to 50 dBA in bedrooms and 55 dBA in other rooms. These maximum instantaneous noise levels are compatible with

airport noise regulations of 45-dBA CNEL, which is an average day/night level.

- P7. Noise-sensitive projects proposed within noise-affected areas (subject to noise levels exceeding 60 dB L<sub>dn</sub>) shall be subject to acoustical studies and provide necessary mitigation from noise.
- P8. The reduction of noise inside buildings shall be achieved by requiring architectural design techniques that meet noise attenuation requirements such as:
- ◆ Locating noise-tolerant rooms (garages, kitchens, bathrooms) closest to the noise source and noise sensitive rooms or areas (living rooms and bedrooms) away from the noise source.
  - ◆ Using architectural design techniques and building façade materials that help shield noise.
  - ◆ Orienting buildings to shield noise sensitive outdoor spaces from a noise source.
  - ◆ Locating bedrooms or balconies on the sides of buildings facing away from noise sources.

#### Actions

- A1. Adopt significance thresholds to assess noise impacts for projects reviewed under the CEQA process.
- A2. Require preparation of acoustical studies and provision of appropriate mitigation of ultimate noise levels for all proposed noise-sensitive projects within noise-affected areas exposed to levels greater than “normally acceptable.” Acoustical studies should consider the effects of significant short-term noise sources (such as passing trains or planes) as well

as the average noise levels that may be experienced over a 24-hour period.

- A3. Amend the Alameda County Building Code to extend the provisions in the California Building Code Appendix Chapter II, Sections 1208A.8, Exterior Sound Transmission Control to new single-family residences.
- A4. Amend the Alameda County Noise Ordinance as necessary to be consistent with this General Plan.
- A5. Actively enforce the Alameda County Noise Ordinance to reduce the number of incidents of excessive noise.

<b>Goal N-2</b>	<b>Minimize the noise impacts from the construction and operation of new land uses.</b>
-----------------	---

Policies

- P1. As a condition of project approval, a noise analysis shall be required for all proposed projects that may result in potentially significant noise impacts to nearby noise-sensitive land uses, such as residential areas. The noise analysis shall include recommendations for design mitigation where significant impacts are identified.
- P2. Mitigation measures shall be required for all projects that would cause a significantly adverse community response or cause any of the following criteria to be exceeded:
  - ◆ Normally acceptable  $L_{dn}$  for land use
  - ◆ Increase of 5 dB  $L_{dn}$  at noise-sensitive uses
  - ◆ Noise ordinance limits (after adoption)

- P3. Inclusion of site design techniques for new construction shall be encouraged to minimize noise impacts, including building placement, landscaped setbacks, orientation of noise tolerant components (i.e. parking, utility areas and maintenance facilities) between noise sources and the sensitive receptor areas.
- P4. All construction in the vicinity of noise sensitive land uses, such as residences, hospitals or convalescent homes, shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday, and to 8:00 a.m. to 5:00 p.m. Saturday and Sunday. These noise source standards may be exceeded as specified in the Alameda County Noise Ordinance in order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events.
- P5. Mitigation measures for construction noise shall be included in EIRs or other appropriate environmental documents as a requirement of construction permit approval.
- P6. Industrial and commercial land uses shall be designed and operated so as to avoid the generation of noise effects on surrounding sensitive land uses (e.g. residences, schools, hospitals, and churches) from exceeding the following noise level standards:
- ◆ 55 dBA L<sub>50</sub> (7:00 am to 10:00 pm)
  - ◆ 45 dBA L<sub>50</sub> (10:00 pm to 7:00 am)
- P7. Local businesses shall be encouraged to reduce noise impacts on the community by replacing excessively noisy equipment and machinery, applying noise-reduction technologies and following operating procedures that limit the potential for conflicts with noise-sensitive land uses.

<b>Goal N-3</b>	<b>Control sources of excessive noise from transportation sources.</b>
-----------------	--

Policies

- P1. The County shall explore innovative approaches to reducing noise levels (i.e. reducing speed limits, alternative paving materials and street trees) on Eden Area streets and, where feasible and appropriate when undertaking improvements, extensions or design changes.
- P2. The County shall prioritize the implementation of noise reduction actions on Corridors and Districts identified in the Land Use Element.

Actions

- A1. Adopt an ordinance to restrict overnight truck parking in industrial areas that abut residential uses to minimize noise problems associated with idling trucks.
- A2. Enforce existing regulations that protect residents from the undesirable effects of excessive noise from transportation sources. Enforcement actions include:
  - ◆ Speed limits on all Eden Area roads to reduce noise from vehicle traffic.
  - ◆ California Motor Vehicle Code Section 27007, which controls the sound of vehicle amplification systems (e.g., loud stereos) by prohibiting amplified sound that can be heard 50 or more feet from a vehicle.
  - ◆ California Motor Vehicle Code Section 27150, which addresses excessive exhaust noise.

- A3. Where shown to be effective and cost beneficial, install alternative pavement surfaces that reduce noise from roadways when repaving opportunities arise.
- A4. Encourage BART and AC Transit to develop and apply noise-reduction technologies that reduce noise impacts associated with BART trains and bus traffic.
- A5. Work with federal and State agencies and authorities from the Union Pacific Railroad to attain effective relief from freight train noise, including train horns.
- A6. Work with Caltrans to achieve noise reduction along major surface streets and to mitigate noise from Interstates 880 and 580 and Highway 238. Encourage Caltrans to use noise reduction techniques such as landscaping, berms, alternative pavement and soundwalls to reduce noise impacts.

<b>Goal N-4</b>	<b>Minimize noise impacts created by the operations of the Hayward Executive Airport and the Oakland International Airport.</b>
-----------------	---

Policies

- P1. Mitigation of airport noise impacts shall be pursued to the fullest extent possible through advocacy for better operational practices, new quieter technologies and physical improvements to airports that would reduce the number of properties in the Eden Area impacted by aircraft noise.
- P2. The County shall actively participate in forums and discussions regarding operations and expansion plans for the Hayward Executive Airport and the Oakland International Airport.

- P3. The County shall seek local representation on task forces, commissions, and advisory boards established to guide airport policies and programs.
- P4. The County shall encourage the Port of Oakland and the City of Hayward to undertake noise abatement and mitigation programs that are based not only on the airport noise contour maps, but that consider other factors such as the frequency and single event noise levels for aircraft overflights, standard flight path deviations, the altitude of aircraft and the hours of operation.

Actions

- A1. Work with the Hayward Executive Airport and the Oakland International Airport to ensure that any changes to airport operations that would potentially result in higher noise levels in the Eden Area incorporate comprehensive noise mitigation measures.

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
NOISE ELEMENT

*This page intentionally blank*

## **8 PUBLIC SAFETY ELEMENT**

As required by State law, the Public Safety Element addresses the protection of the community from unreasonable risks from natural and manmade hazards. This Element provides information about risks in the Eden Area and delineates policies designed to prepare and protect the community as much as possible from the effects of:

- ◆ Geologic hazards, including earthquakes, ground-shaking, liquefaction and landslides.
- ◆ Flooding, including dam failures and inundation, tsunamis and seiches.
- ◆ Wildland fires.
- ◆ Hazardous materials.

This Element also contains information and policies regarding general emergency preparedness. Each section includes background information on the particular hazard followed by goals, policies and actions designed to minimize risk for Eden Area residents.

The Public Safety Element establishes mechanisms to prepare for and reduce death, injuries and damage to property from public safety hazards like flooding, fires and seismic events. Hazards are an unavoidable aspect of life, and the Public Safety Element cannot eliminate risk completely. Instead, the Element contains policies to create an acceptable level of risk.

### **1. GEOLOGY AND SEISMIC HAZARDS**

Earthquakes and secondary seismic hazards such as ground-shaking, liquefaction and landslides are the primary geologic hazards in the Eden Area. This section provides background on the seismic hazards that affect the Eden Area and includes goals, policies and actions to minimize these risks.

### A. *Background Information*

As is the case in most of California, the Eden Area is subject to risks from seismic activity. The Eden Area is located in the San Andreas Fault Zone, one of the most seismically-active regions in the United States, which has generated numerous moderate to strong earthquakes in northern California and in the San Francisco Bay Area. The region experienced large and destructive earthquakes in 1838, 1868, 1906 and 1989. Future earthquakes of equally grave proportions are a certainty in the San Francisco Bay region according to the Working Group on California Earthquake Probabilities (WG 02), established by the U.S. Geological Survey (USGS).<sup>1</sup>

Earthquakes can also give rise to various secondary seismic hazards, including ground shaking, liquefaction and subsidence, ground rupture and slope instability. These seismic hazards can cause damage to structures, and risk the health and safety of citizens, particularly in unreinforced masonry buildings.

#### 1. **Measuring Earthquake Magnitudes**

The strength of an earthquake is generally expressed in two ways: *magnitude* and *intensity*. Magnitude, which is expressed in whole numbers and decimals (e.g. 7.1), is a measure that depends on the seismic energy radiated by the earthquake as recorded on seismographs. The original magnitude scale is the Richter scale (M),<sup>2</sup> which has no upper limit and is not used to express damage.<sup>3</sup> Earthquakes with magnitude of about 2.0M or less on the Richter scale are usually called microearthquakes and are not commonly felt by people. Events with magnitudes of about 4.0M and up are felt by most people.

---

<sup>1</sup>U.S. Geological Survey, 2003, *Earthquake Probabilities In the San Francisco Bay Region: 2003-2032* by the Working Group on California Earthquake Probabilities. Open-File Report 03-214, page 1.

<sup>2</sup> California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002.

<sup>3</sup> USGS Earthquake Hazards Program (<http://neic.usgs.gov/neis/general/richter.html>, accessed on January 27, 2005).

The most commonly used magnitude scale today is the Moment Magnitude (Mw) scale, which is related to the physical size of fault rupture and the movement across a fault. Mw is based on the seismic moment<sup>4</sup> at the source, or epicenter, of the earthquake. The Moment Magnitude scale is a way of rating the seismic moment of an earthquake with a simple, logarithmic numerical scale similar to the original Richter magnitude scale. Because it does not “saturate” the way local magnitude does, it is used for large earthquakes—those that would have a local magnitude of about 6.0M or larger.<sup>5</sup>

The force of an earthquake at a particular place is measured on the Modified Mercalli Intensity Scale, which is a subjective ranking of an earthquake’s effects on persons and structures. It is expressed in Roman numerals from I to XII. Lower numbers on the scale indicate less severe shaking. Table 8-1 summarizes the Modified Mercalli Intensity Scale in relation to the Richter Scale.

## 2. Earthquake Faults

The Hayward Fault, one of ten major faults that comprise the San Andreas Fault Zone, runs along the eastern edge of the Eden Area and links with the Rodgers Creek Fault to the north. Although the last major earthquake generated by the Hayward Fault was in 1868, pressure is slowly building again and will begin to overcome the friction and other forces that are causing the fault zone to stick. Eventually, the accumulated energy will be released in another big earthquake.<sup>6</sup>

---

<sup>4</sup> The seismic moment of an earthquake is determined by the strength or resistance of rocks to faulting multiplied by the area of the fault that ruptures and by the average displacement that occurs across the fault during the earthquake. (Source: California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002.)

<sup>5</sup> Sources: California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002; <http://www.seismo.berkeley.edu/seismo/faq/magnitude.html>; <http://www.scecdc.scec.org/Module/sec3pg19.html>.

<sup>6</sup> U.S. Geological Survey, *USGS Open House 2000 Field Trip – Hayward fault zone, Hayward.*, <http://wrgis.wr.usgs.gov/wgmt/sfbay/oh2000-ha-ft.pdf>.

TABLE 8-1 **MODIFIED MERCALLI AND RICHTER SCALES**

Definition for this Plan	Richter Magnitude	Modified Mercalli Category	Expected Modified Mercalli Maximum Intensity at Epicenter
Minor	2	I-II	Usually detected only by instruments
	3	III	Felt indoors
	4	IV-V	Felt by most people; slight damage
Moderate	5	VI-VII	Felt by all; many frightened and run outdoors; minor to moderate damage
Major	6	VII-VIII	Everybody runs outdoors moderate to major damage
	7	IX-X	Major damage
	8+	X-XII	Total and major damages

Source: ABAG (<http://www.abag.ca.gov/bayarea/eqmaps/doc/mmi.html>).

According to WG 02, the fault system that includes the Hayward and Rodgers Creek faults has a 27 percent probability of generating an earthquake with a magnitude greater than or equal to 6.7 on the Mercalli Richter Scale in the next 30 years. It is also the most likely fault in the Bay Area to be the site of a major earthquake in this time period.<sup>7</sup>

The Hayward Fault is of particular concern to WG 02 because of the dense urban fabric of the communities adjacent to it, and the major infrastructure lines that cross it. A large earthquake on the Hayward Fault would, in all probability, cause extensive damage throughout the Eden Area.

<sup>7</sup> U.S. Geological Survey, *USGS Open House 2000 Field Trip – Hayward fault zone, Hayward.*, <http://wrgis.wr.usgs.gov/wgmt/sfbay/oh2000-ha-ft.pdf>, page 4.

A moderate to major earthquake along the Hayward Fault is most likely to generate the strongest ground shaking in the area, but other regional faults, including the San Andreas, Calaveras, Rodgers Creek and others could also affect the Eden Area. Regional faults are shown in Figure 8-1. A moderate to major earthquake on any of these faults could topple buildings, disrupt infrastructure, cripple the transportation system and trigger landslides.

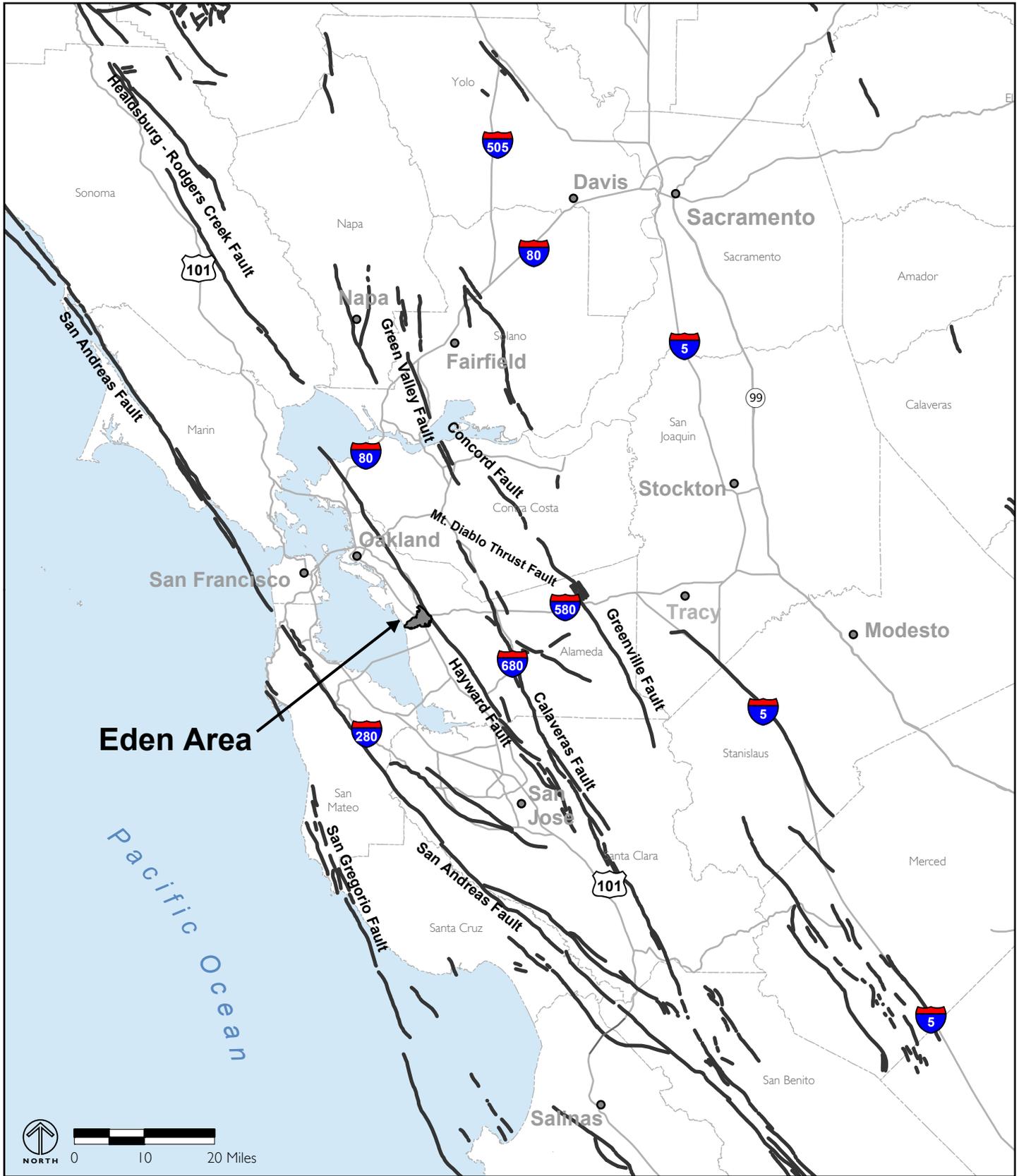
### 3. Secondary Earthquake Hazards

Earthquakes often result in secondary hazards that may cause widespread damage. The three most likely secondary earthquake hazards in the Eden Area are ground-shaking, liquefaction and landslides. The USGS and the Association of Bay Area Governments (ABAG) have worked together to map the likely intensity of ground-shaking throughout the Bay Area under various earthquake scenarios. The most intense ground-shaking scenario mapped in the Eden Area assumes a 6.9 magnitude earthquake on the Hayward Fault system. The predicted ground-shaking from such an earthquake would be “very violent” or “violent” throughout most of the Eden Area.<sup>8</sup>

The California Geological Survey has mapped liquefaction and landslide hazards. Liquefaction occurs when the strength of saturated, loose, granular materials, such as silt, sand or gravel, is dramatically reduced as a result of an earthquake. This earthquake-induced deformation transforms a stable material into a temporary fluid-like state in which solid particles are virtually in

---

<sup>8</sup> Association of Bay Area Government’s Earthquake Maps and Information website. <http://www.abag.ca.gov/bayarea/eqmaps>. Violent shaking (IX Mw) would produce heavy damage and general panic. Some masonry and frame buildings would face serious structural and foundation damage. Reservoirs and underground pipes would also be at serious risk. Conspicuous cracks and ground disruption particularly in alluvial areas, are anticipated. Very Violent shaking (X Mw) would result in extreme damage. Most masonry and frame structures would be destroyed with their foundations. Some well-built wooden structures and bridges destroyed. There could be serious damage to dams, dikes, embankments and large landslides. Water may also be thrown from waterbodies and sand and mud would shifted horizontally on beaches and flat land. Rails would be bent slightly by the motion.



Source: Deisgn, Community & Environment, May, 2004; US Geologic Survey, Working Group on California Earthquake Probabilities, 1990; Stellar Environmental Solutions, November 1996. Faults were screen-digitized by DC&E and are intended for illustrative purposes only; locations are approximate.

**FIGURE 8-1**

**REGIONAL FAULTS**

**COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN**

suspension, akin to quicksand. Landslides are common in hill areas and mountains where loose material and steep slopes combine to create unstable conditions. Instability may be exacerbated by earthquakes, stream and coastal erosion, heavy rainfall, extensive irrigation, poor drainage or groundwater withdrawal, removal of stabilizing vegetation and undercutting or overloading slopes for construction. Figure 8-2 shows liquefaction and landslide zones in the Eden Area.

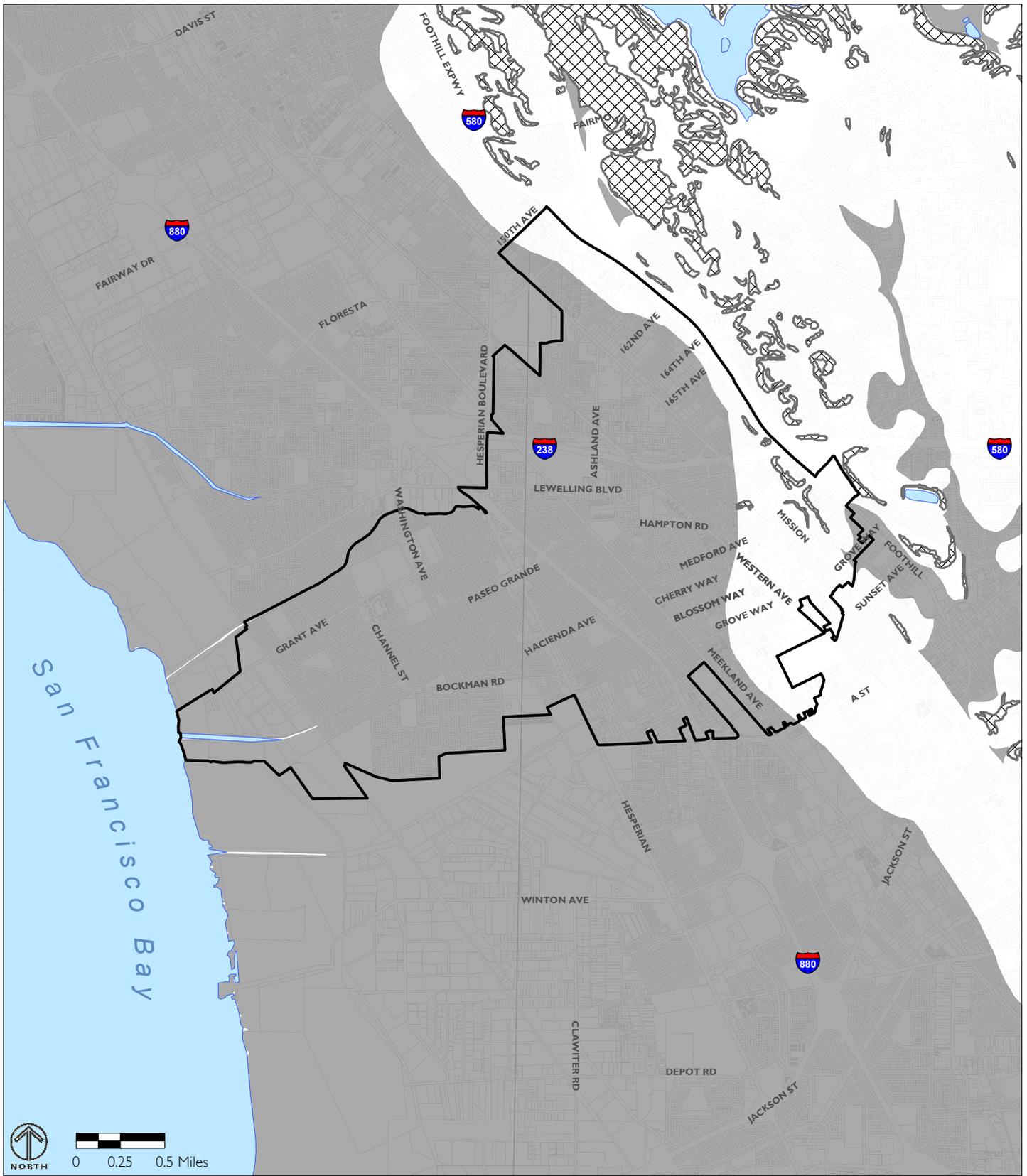
#### 4. Alquist-Priolo Zones

The *Alquist-Priolo Earthquake Fault Zoning Act*, which was passed in 1972 to mitigate the hazards of surface faulting to structures built for human occupancy, requires the State Geologist to delineate wide, special study zones to encompass all active and potentially active traces of the San Andreas, Calaveras, Greenville and Hayward Faults, as well as other such faults or fault segments deemed necessary. As shown in Figure 8-3, a portion of the Eden Area is subject to the Act.

The State Board of Mines and Geology is charged with establishing policies and criteria for future land use in Alquist-Priolo Hazard Zones, although local agencies must regulate most development projects within the zones. Before a project may be permitted in a Alquist-Priolo Hazard Zone, the associated city or county must provide a geologic survey that demonstrates that the proposed buildings will not be constructed across traces of active faults. Any evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, no structure for human occupancy may be placed over the trace of the fault and structures must be set back from the fault, except as described below.<sup>9</sup>

---

<sup>9</sup> State of California, State Geological Survey *Alquist-Priolo Earthquake Fault Zones* webpage, (<http://www.consrv.ca.gov/CGS/rghm/ap/> accessed on January 15, 2005).

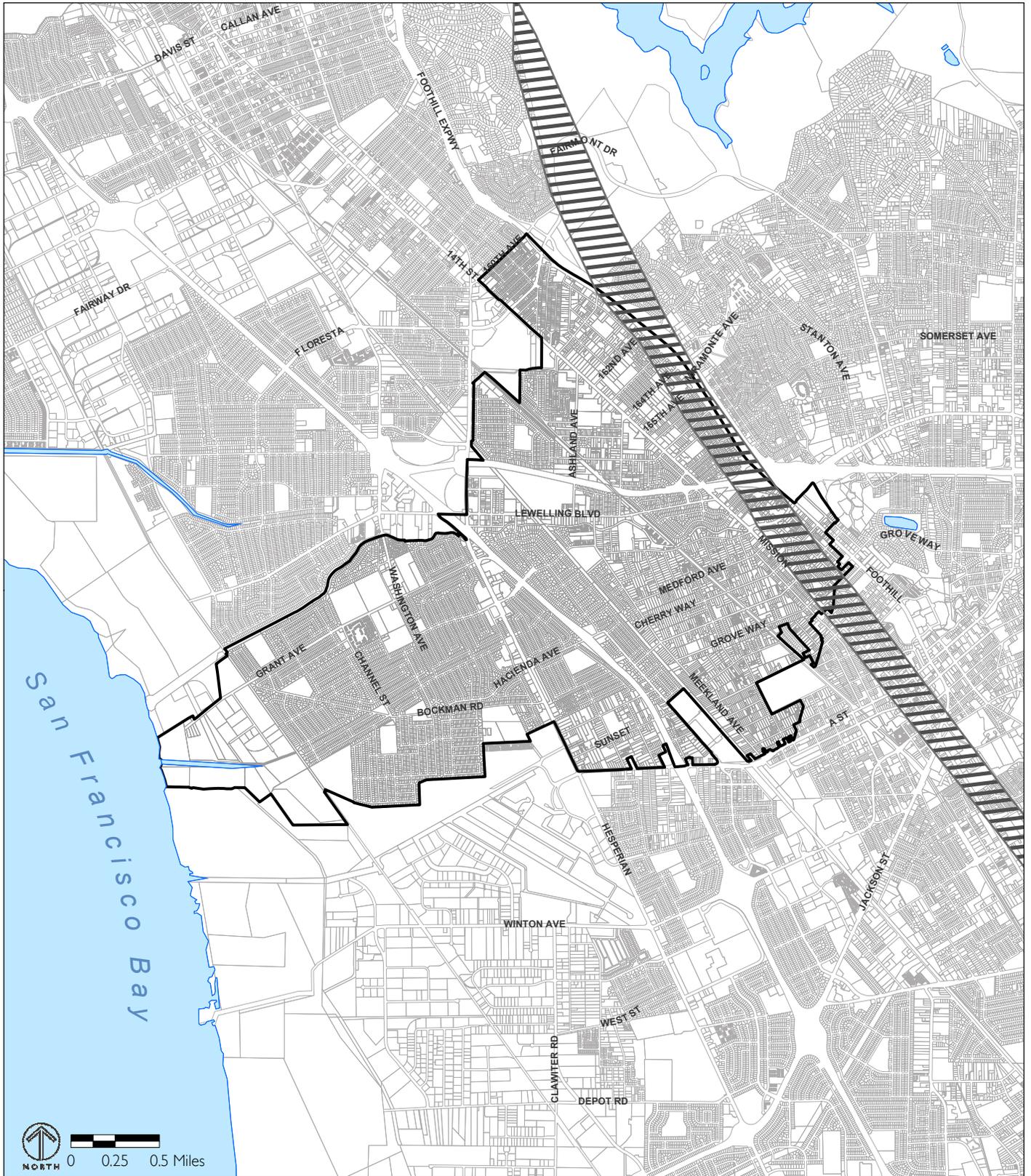


Source: California Department of Conservation, California Geological Survey, Seismic Hazard Zones: Hayward and San Leandro Quadrangles.

**FIGURE 8-2**

-  Study Area Boundary\_April26
-  Landslide Zones
-  Liquefaction Zones

**SECONDARY SEISMIC HAZARDS**



Data Source: California Department of Conservation, Division of Mines and Geology  
 GIS files of Official Maps of Alquist-Priolo Earthquake Fault Zones, Central Coastal Region  
 Published 2001

**FIGURE 8-3**

 **Alquist-Priolo Zone**

**ALQUIST - PRIOLO ZONES  
 IN THE EDEN AREA**

**COUNTY OF ALAMEDA  
 EDEN AREA GENERAL PLAN**

A “structure for human occupancy” is defined as any structure used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year. Single-family frame dwellings are exempt unless part of a development of four or more dwellings.

#### **5. Uniform Building Code**

Since the 1970s, the *Uniform Building Code (UBC)* in California has incorporated minimum standards to protect the life and safety of building occupants and the general public from earthquake-related damage. Buildings constructed in California prior to these code revisions generally do not meet current UBC design provisions for earthquake forces. Many of the buildings in the Eden Area, particularly houses and apartment buildings, were built before 1970 and thus may be susceptible to damage in the event of an earthquake.

#### **6. Unreinforced Masonry Buildings**

Unreinforced masonry buildings (URM) are categorically brick, stone or concrete buildings that were built without structural steel reinforcements. They represent a particular and significant earthquake hazard since they can easily collapse as a result of violent groundshaking. Most local jurisdictions in Alameda County adopted strong earthquake bracing provisions around 1950 and have subsequently used these, and more recent amendments to the building code, to regulate new development. However, a substantial number of buildings were built in the Eden Area before those codes were adopted. There is currently no comprehensive tally of unreinforced masonry buildings in the Eden Area.

In 1986, a bill was passed in the State Legislature requiring inspection and mitigation of all types of URM buildings within the State’s Seismic Safety Zone 4, which includes the Eden Area. This bill has since been codified as Government Code Section 8875 *et. seq.* The law requires cities and counties to identify potentially hazardous URM buildings, develop mitigation programs to reduce the hazards and submit the results to the State Seismic Safety Commission. Some unreinforced buildings are exempt from Section 8875,

including residential buildings with five or fewer living units, buildings owned by the federal or State government, and warehouses or similar buildings that have few occupants and no emergency services or supplies. Although historic buildings are also exempt, the Seismic Safety Commission recommends they be included in mitigation programs.

*B. Goals, Policies and Actions*

<b>Goal SAF-1 Minimize the risks to lives and property due to seismic and geologic hazards.</b>
---

Policies

P1. Site specific geologic hazard assessments, conducted by a licensed geologist, shall be completed prior to development approval in areas with landslide and liquefaction hazards as indicated in Figure 8-2 and for development proposals submitted in Alquist-Priolo Zones as indicated in Figure 8-3. Hazards to be mapped include:

- ◆ Seismic features
- ◆ Landslide potential
- ◆ Liquefaction potential

Mitigation measures needed to reduce the risk to life and property from earthquake induced hazards should be included.

P2. Buildings shall be designed and constructed to withstand ground shaking forces of a minor earthquake without damage, of a moderate earthquake without structural damage, and of a major earthquake without collapse of the structure. The County shall require that critical facilities and structures (e.g. hospitals, emergency operations centers) be de-

signed and constructed to remain standing and functional following an earthquake. Minor, moderate and major earthquakes are defined in Table 8-1.

- P3. All construction in the Eden Area shall conform with the Uniform Building Code and the Alameda County Building Code, which specify requirements for seismic design, foundations and drainage.
- P4. To the extent feasible, major infrastructure including transportation, pipelines, and water and natural gas mains, shall be designed to avoid or minimize crossings of active fault traces and to accommodate fault displacement without major damage that could result in long-term service disruptions.
- P5. The County shall encourage the retrofitting of existing structures and other seismically unsafe buildings and structures to withstand earthquake ground-shaking.
- P6. New development in areas with the potential for landslides or liquefaction hazards, as indicated in Figure 8-2, shall not be approved unless the County can determine that feasible measures will be implemented to reduce the potential risk to acceptable levels, based on site-specific analysis. The County shall review new development proposals in terms of the risk caused by seismic and geologic activity.
- P7. In order to minimize off-site impacts of hillside development, new construction on landslide-prone or potentially unstable slopes shall be required to implement drainage and erosion control provisions to avoid slope failure and mitigate potential hazards.

Actions

- A1. Periodically update detailed guidelines for preparation of site-specific geologic hazard assessments. These guidelines shall be prepared in consultation with the County Building Official, County Engineer, County Geologist, County Counsel and the County Risk Manager and shall ensure that site-specific assessments for development requiring discretionary permits are prepared according to consistent criteria.
- A2. Update existing secondary hazard maps as new data become available. These maps shall be used by the County to determine where further study is required, and shall not be used to determine where hazardous conditions exist.
- A3. Develop and implement an earthquake retrofit plan to reduce hazards from earthquakes. The plan should identify and tally the seismically unsafe buildings and structures, including unreinforced masonry, unreinforced concrete and soft-story buildings, and require inspection for these structures. It should also identify sources of funding to help reconstruct or replace inadequate structures and assist homeowners with earthquake retrofitting.

## 2. FLOODING AND INUNDATION

Flooding is a concern in the Eden Area. There are locations near the San Francisco Bay that are subject to flooding under extreme conditions such as 100-year floods. These hazards are discussed in this section.

*A. Background Information*



*San Lorenzo Creek*

Flooding can cause damage to structures and personal belongings, and generate large volumes of downed trees and other vegetation, mud and soil, sandbags, plastic sheeting and household or demolition debris. The following are potential causes of local flooding.

**1. Storm Drainage**

In the Eden Area, stormwater runoff that does not infiltrate into the subsurface is directed into a constructed stormwater drainage system consisting of crowned streets, curbside gutters, drainage inlets, subsurface pipes, and engineered canals and creeks. Storm water in the Eden Area flows into three channels: the San Lorenzo Creek, Bockman Canal and Estudillo Canal. Estudillo Canal is located in the City of San Leandro. However, based on the current Federal Emergency Management Agency (FEMA) map and the information received from the Flood Control District, the system is at or above capacity for any flooding above a 15-year event. The San Lorenzo Creek begins just south of the Dublin grade and runs from east to west through Castro Valley and the Eden Area. Above Interstate 580, it flows freely before being directed into a concrete-lined, trapezoidal channel under the freeway. As it nears the San Francisco Bay, the channel has a sandy bottom and is tidally-influenced.<sup>10</sup> San Lorenzo Creek was originally designed by the Corps of Engineers for a Standard Project Flood of approximately 9,700 cubic feet per second (cfs). However, the current 100-year discharge is in the order of 15,000 cfs, creating serious potential for inundations during such an event. A detailed study of the potential flooding area was conducted by the Flood Control District.<sup>11</sup>

---

<sup>10</sup> Personal communication with Emanuel Da Costa, Alameda County Flood Control & Water Conservation District, to DC&E on April 5, 2005. <http://www.baysavers.org/Programs/SLZ/tour.htm>.

<sup>11</sup> Personal Communication, Public Works Agency Alameda County, June 27, 2005.

The San Lorenzo Creek is part of the San Lorenzo Creek watershed, which encompasses approximately 48 square miles and seven creeks. The watershed begins in lightly developed hills to the east and north of Castro Valley and just south of the Don Castro Reservoir. The watershed covers parts of north Hayward and San Lorenzo and is the second largest watershed in the East Bay. Just south of Interstate 580, near Crown Canyon Road, the watershed enters a highly urbanized area.<sup>12</sup>

The Bockman Canal is considered to be its own watershed, which contains a series of storm drains and canals that drain the western part of San Lorenzo. The canal itself runs east to west through San Lorenzo. Like San Lorenzo Creek, Bockman Canal is concrete lined and tidal west of the Union Pacific railroad tracks.<sup>13</sup> Based on recent studies, the open channel portion of the system may be adequate for a 100-year discharge, but the closed conduit portion – starting upstream of Channel Street and continuing all the way up to Interstate 880 – is under capacity for events greater and including a 15-year storm.<sup>14</sup>



*San Lorenzo Creek*

## 2. Current FEMA 100-Year and 500-Year Flood Plain

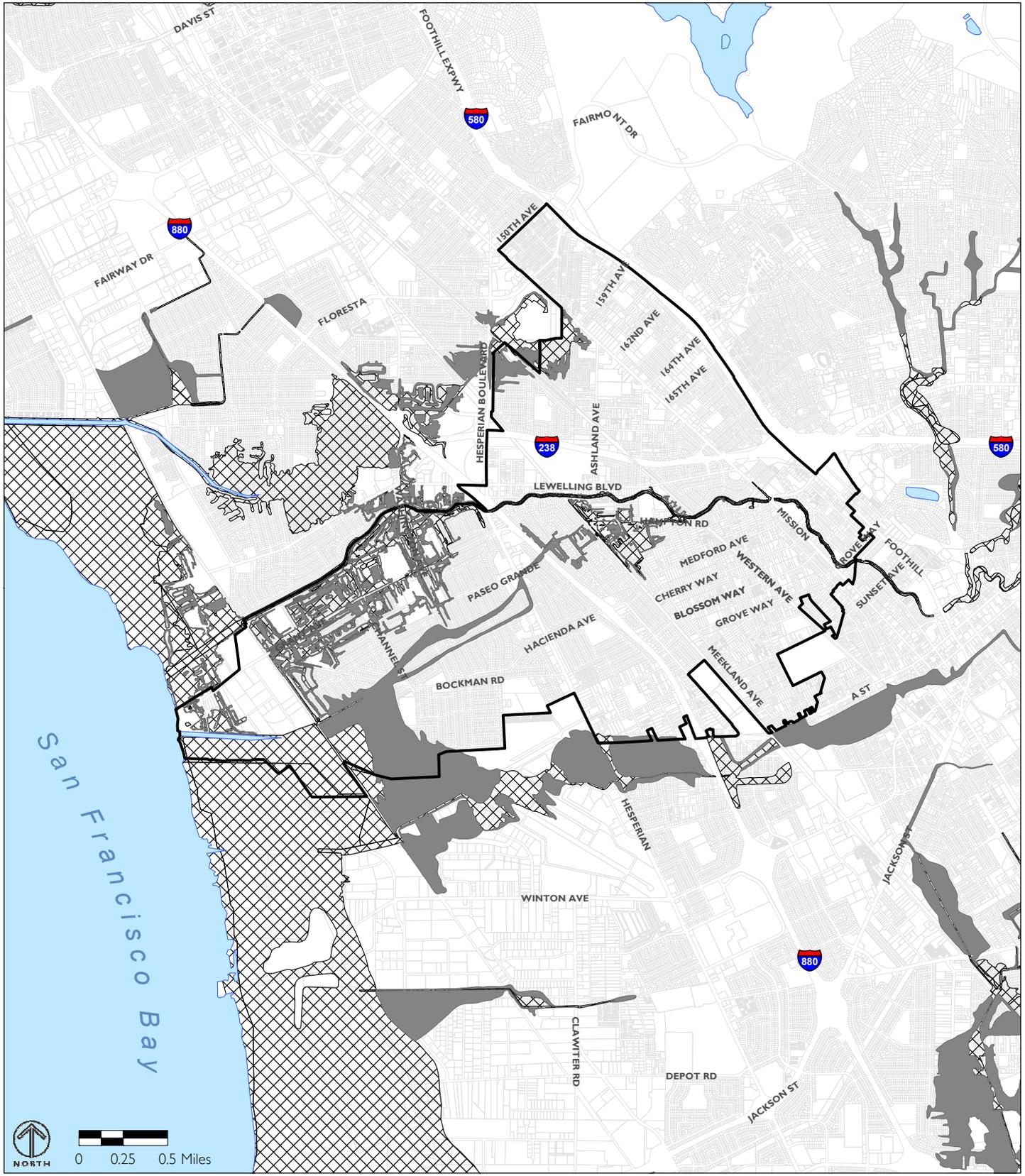
Portions of the Eden Area are subject to inundation from a 100-year flood, as shown in Figure 8-4. As defined by FEMA, a 100-year flood is not a flood that will occur once every 100 years; it is a flood that has a one percent chance of being equaled or exceeded each year. Thus, an area outlined as a 100-year flood zone could flood more than once in a relatively short period of time. Figure 8-4 also shows the portions of the Eden Area subject to inundation from a 500-year flood, which have a 0.2 percent chance of flooding in any given year.

---

<sup>12</sup> <http://www.baysavers.org/Programs/SLZ/tour.htm> accessed on April 5, 2005.

<sup>13</sup> <http://www.museumca.org/creeks/28-RescBockman.html> accessed on April 5, 2005.

<sup>14</sup> Personal communication, Public Works Agency Alameda County, June 27, 2005.



Source: FEMA Flood Insurance Rate Maps, Digital Q3 data.

**FIGURE 8-4**

**100 & 500 YEAR  
FEMA FLOOD ZONES**

-  Study Area Boundary
-  500 Year FEMA Flood Zone
-  100 Year FEMA Flood Zone

Revisions to the Flood Insurance Rate Maps (FIRMs) in December 2007 changed the boundaries of the 100-year and 500-year flood zones in the Eden Area, mostly expanding them, but also contracting them in some areas. As a result, there are approximately 600 more parcels, including single-family and multiple-family residential units, within the 100-year flood zone, and 500 more parcels within the 500-year flood zone, than were shown in previous versions of the FIRMs.

The 100-year flood, which is the standard used by most federal and state agencies, is also used by the National Flood Insurance Program (NFIP) as the standard for floodplain management and to determine the need for flood insurance. A structure located within a special flood hazard area shown on an NFIP map has a 26 percent chance of suffering flood damage during the term of a 30-year mortgage.

The Alameda County Building Inspection Division, which reviews permits for compliance with its flood hazard abatement codes and regulations, addresses the potential for flooding from a 100-year flood at individual sites when specific development is proposed.

### **3. Tsunamis**

A tsunami is a series of long waves generated by any sudden displacement of a large volume of water. Tsunamis can be triggered by a number of submarine phenomenon including earthquakes, volcanic eruptions, landslides, meteor impacts and onshore slope failures that fall into the ocean or bay. Tsunami waves can travel across entire ocean basins as well as enter into bays and inlets, sometimes rising as much as 40 feet above sea level before hitting land. The USGS has estimated that the San Francisco Bay will experience a 20-foot high tsunami at a frequency of once every 200 years. The wave height would reduce by half as it reaches the Albany/Berkeley shoreline and decrease fur-

ther as it travels south. The Eden Area would be subject to some level of inundation from a tsunami of this magnitude.<sup>15</sup>

#### 4. Seiches

Seiches are waves generated in an enclosed body of water, such as the San Francisco Bay, from seismic activity. Seiches are related to tsunamis for enclosed bays, inlets, and lakes. These tsunami-like waves can be generated by earthquakes, subsidence or uplift of large blocks of land, submarine and on-shore landslides, sediment failures and volcanic eruptions. The strong currents associated with these events may be more damaging than inundation by waves. The largest seiche wave ever measured in the San Francisco Bay, following the 1906 earthquake, was four inches high. The Bay Area has not been adversely affected by seiches during its history within this seismically active region of California.<sup>16</sup>



*Drainage ditches help to mitigate flooding hazards*

#### 5. Flood Control Activities

The Alameda County Flood Control District (District) has participated voluntarily in the Community Rating System Program (CRS) since 1992. This national program, offered by FEMA's NFIP, provides credit points to the District for instituting more effective floodplain management than is required as a minimum by the federal government.

Between 1994 and 1999, Alameda County has received sufficient credit in the CRS program to qualify Eden Area residents living in flood hazard areas for a 10 percent discount in their federal flood insurance premiums. In 1999, the Public Works Agency, which administers the CRS program in the Eden Area, earned sufficient credits to earn an additional 5 percent reduction for Eden Area residents in flood hazard areas, for a total of 15 percent.

---

<sup>15</sup> Alameda County Waste Management Authority, *Disaster Waste Management Plan*, Table 2-1.

<sup>16</sup>U.S. Army Corps of Engineers San Francisco District, Port of Oakland. *Oakland Harbor Navigation Improvement (-50 Foot) Project SCH No. 97072051 Final Environmental Impact Statement/Report*, May 1998, Updated January 2000.

*B. Goals, Policies and Actions*

**Goal SAF-2 Reduce hazards related to flooding and inundation.**

Policies

- P1. Development shall only be allowed on lands within the 100-year flood zone if it will not:
- ◆ Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use.
  - ◆ Impede access of emergency vehicles during a flood.
  - ◆ Create a safety hazard due to the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters at the site.
  - ◆ Exacerbate costs of providing governmental services during and after flooding, including increased maintenance and repair of public utilities and facilities.
  - ◆ Interfere with the existing water flow capacity of the floodway.
  - ◆ Substantially increase erosion and/or sedimentation.
  - ◆ Contribute to the deterioration of any watercourse or the quality of water in any body of water.
- P2. Both public and private service facilities and utilities in existing 100-year flood zones, such as the Oro Loma Wastewater Treatment Plant, shall be flood-proofed to a point at, or above, the base flood elevation.
- P3. The County shall prevent the construction of flood barriers within the 100-year flood zone that will divert flood water or increase flooding in other areas.

- P4. To the extent feasible, the County shall continue to improve its rating under the National Flood Insurance Program so that flood insurance premiums for residents in flood areas may be reduced.
- P5. Property owners should be encouraged to purchase National Flood Insurance, which reduces the financial risk from flooding and mudflows.
- P6. Development shall comply with applicable NPDES requirements.

Actions

- A1. Continue to participate in activities that prevent or reduce flood impacts to existing and future development as described under the Community Rating System program developed by FEMA's National Flood Insurance Program.
- A2. Monitor potential changes in information regarding tsunami hazards for the Eden Area.

<b>Goal SAF-3    Improve the ability of the San Lorenzo Creek to handle 100-year flood events.</b>
--

Policies

- P1. The County shall ensure that any changes to the San Lorenzo Creek drainage channel will result in the continued ability to accommodate runoff from storms and to maintain a status outside the 100-year flood zone.
- P2. The County shall not permit the flow of the San Lorenzo Creek to be diverted in any way that results in flooding to adjacent property owners.

Actions

- A1. The County should develop a program, based on studies conducted by the Alameda County Flood Control District, to ensure improvements to the San Lorenzo Creek drainage channel or Bockman canal will result in the continued ability to accommodate runoff from storms and to maintain its status outside a 100-year flood event.
  
- A2. The County will work with local jurisdictions and other stakeholder agencies to implement the recommendations of the San Lorenzo Watershed Drainage Master Plan.

### **3. WILDLAND FIRES**

The Eden Area does not fall within any Very High Fire Hazard Severity Zones (VHFHSZ), although the hillside area to the northeast of Ashland is within a VHFHSZ. Therefore, wildland fires are not a concern in the Eden Area.

### **4. HAZARDOUS MATERIALS**

Products as diverse as gasoline, paint, solvents, film processing chemicals, household cleaning products, refrigerants and radioactive substances are categorized as hazardous materials. What remains of a hazardous material after use or processing is considered to be a hazardous waste. The handling, transportation and disposal of such wastes is of concern to all communities. Improper handling of hazardous materials or wastes may result in significant effects to human health and the environment. Hazardous waste may pose risks to human health and safety in the form of serious health problems and to the environment through contamination of water and air.

*A. Background Information*

Nearly all businesses and residences in the Eden Area generate some amount of hazardous wastes. The most common industrial hazardous wastes in the Eden Area are generated from gasoline service stations, dry cleaners, automotive repair shops, machine shops, printers and photo processors. Most of these wastes are petroleum-based or hydrocarbon hazardous waste and include cleaning and paint solvents, lubricants and oils. In addition, medical wastes such as potentially infectious waste from laboratories, clinics and hospitals, are also included among the hazardous wastes found in the Eden Area.

Hazardous materials are heavily regulated by a range of federal, State and local agencies. One of the primary hazardous materials regulatory agencies is the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). DTSC is authorized by the US Environmental Protection Agency (EPA) to enforce and implement federal hazardous materials laws and regulations. DTSC has responsibility for oversight of all Annual Work Plan sites (commonly known as State Superfund sites) which are sites designated by EPA as having the greatest potential to affect human health and the environment. There are no Superfund sites in the Eden Area.

The Alameda County Environmental Health has primary responsibility for enforcing most regulations pertaining to hazardous materials in the Eden Area. The Alameda County Fire Department acts as first responder to hazardous materials incidents within the Eden Area.

Hazardous waste programs in the Eden Area are also governed by the *Alameda County Hazardous Waste Management Plan* and the *Alameda County Integrated Waste Management Plan*. These plans include forecasts for the generation of hazardous waste and provide policies for the management of this waste in Alameda County. The primary focus of both plans is to reduce the amount of hazardous waste generated in the County and to safely reuse, recycle or store any waste that is generated.

In addition to the programs and plans mentioned above, the Alameda County Household Hazardous Waste Program is operated as a partnership between the Alameda County Department of Environmental Health and the Alameda County Waste Management Authority. Eden Area residents may take their household hazardous waste to any of three collection facilities located in Hayward, Oakland and Livermore. Approximately 233,982 tons of hazardous waste (or 9.53% of total non-commercial hazardous waste) was received by the Alameda County Household Hazardous Waste program from households in Eden Area zip codes during fiscal year 2003.<sup>17</sup>

*B. Goals, Policies, and Actions*

**Goal SAF-4 Minimize Eden Area residents' exposure to the harmful effects of hazardous materials and waste.**

Policies

- P1. The County shall strive to reduce hazardous waste using the following hierarchy of waste management strategies:
- ◆ Reduce the sources of hazardous waste.
  - ◆ Recycle and reuse hazardous wastes.
  - ◆ Treat or incinerate residual hazardous waste.
  - ◆ Place reduced or untreatable waste in secure land disposal units.

---

<sup>17</sup> Zip codes were used to define the area because this is the level at which the Alameda County Waste Management Authority Household Hazardous Waste Program collects data. Zip codes used to approximate the Eden Area were 94541, 94546, 94578 and 94580. Personal communication with William Pollock, Alameda County Waste Management Authority Household Hazardous Waste Program to DC&E on November 9, 2004.

- P2. New or expanding businesses shall be required to demonstrate compliance with the hierarchy of waste management strategies listed in Policy 1 of this Goal as a condition of receiving land use and business permits.
- P3. All existing hazardous waste generators shall be required to implement the hazardous waste management hierarchy listed in Policy 1 of this Goal to the maximum extent feasible, both technically and economically.
- P4. The County shall assist the Alameda County Waste Management Authority with the implementation of the *Alameda County Integrated Waste Management Plan* and the *Alameda County Hazardous Waste Management Plan*.
- P5. Adequate separation shall be provided between areas where hazardous materials are present and sensitive uses such as schools, residences and public facilities.
- P6. Developers shall be required to conduct the necessary level of environmental investigation to ensure that soil, groundwater and buildings affected by hazardous material releases from prior land uses and lead or asbestos in building materials will not have a negative impact on the natural environment or health and safety of future property owners or users. This shall occur as a pre-condition for receiving building permits or planning approvals for development on historically commercial or industrial parcels.
- P7. The safe transport of hazardous materials through the Eden Area shall be promoted by implementing the following measures:
- ◆ Maintain formally-designated hazardous material carrier routes to direct hazardous materials away from populated and other sensitive areas.

- ◆ Prohibit the parking of empty or full vehicles transporting hazardous materials on County streets.
  - ◆ Require new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the extent possible.
  - ◆ Encourage businesses to ship hazardous materials by rail.
- P8. Emergency response plans shall be submitted as part of all use applications for any large generators of hazardous waste.
- P9. To the extent feasible, the County shall continue to support the removal of hazardous wastes from the solid waste stream in the Eden Area in accordance with Countywide plans.

Actions

- A1. Cooperate with the Alameda County Waste Management Authority and Alameda County Department of Environmental Health to implement the hierarchy of waste management strategies listed in Policy 1 of this Goal.
- A2. Continue to implement local siting criteria in order to implement relevant and applicable provisions consistent with the hazardous materials and waste management plans for Alameda County.

## 5. EMERGENCY PREPAREDNESS

Emergency preparedness is an important aspect of minimizing potential damage that may occur in the event of a disaster. Public education, predetermined evacuation routes and coordination among emergency response agencies are key components to an effective strategy for dealing with any potential hazard.

*A. Background Information*

As required by State law, Alameda County has established emergency preparedness procedures to be prepared for and respond to a variety of natural and man-made disasters that could confront the community. Emergency and disaster planning is primarily conducted through the Public Health Department, in collaboration with other County departments. Resources are also available to the public at the Department of Public Health website.<sup>18</sup>

*B. Goals, Policies, and Actions*

<p><b>Goal SAF-5 Prepare and keep current County emergency procedures in the event of potential natural or man-made disaster.</b></p>
---

Policies

- P1. The County shall coordinate with emergency response agencies in adjacent jurisdictions to prepare for natural and man-made disasters.
- P2. Adequate emergency water flow, emergency vehicle access and evacuation routes shall be incorporated into any new development prior to project approval.

Actions

- A1. Complete regularly scheduled reviews and updates of the emergency preparedness plan.

---

<sup>18</sup> <http://www.acphd.org/> accessed on April 14, 2005.

- A2. Conduct periodic mock exercises using emergency response systems to test the effectiveness of County procedures included in the emergency management plan.
- A3. Develop public education programs on first-aid training and disaster preparedness that encourage residents and businesses to stockpile emergency food, water and medical supplies, and provide information on emergency access routes. Other topics should be included as necessary.
- A4. Work with Caltrans, and the local and Countywide fire and police departments to identify appropriate emergency access routes through the Eden Area.

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
PUBLIC SAFETY ELEMENT

*This page intentionally blank*

## 9 GREENHOUSE GAS ACTION ELEMENT

This element summarizes the County of Alameda's efforts to reduce its greenhouse gas (GHG) emissions in the Eden Area. It includes a discussion of the main strategies the County is undertaking to reduce GHG emissions and a summary of goals and policies found throughout this General Plan that address urban form, growth patterns and alternative transportation as they relate to climate. It also provides additional goals and policies specifically aimed at reducing greenhouse gas emissions from new growth in the Eden Area. (Please note that this element has been newly added to the General Plan since the completion of the Final Draft General Plan in March 2007.)

### *A. Background*

The County of Alameda has taken an active role in adopting initiatives and policies to reduce GHG emissions. In June 2006, the Alameda County Board of Supervisors unanimously approved Resolution-2006-204, which established the County Climate Change Leadership Strategy to achieve the GHG emission reduction targets set forth in State of California Executive Order S-3-05. In line with Executive Order S-3-05, the County aims to reduce emissions to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050.

To meet these targets, the County will prepare and maintain a Climate Action Plan (CAP). Alameda County's CAP will consist of a plan for its government operations (Government CAP) and a plan for the unincorporated areas of the County (Community CAP). The Community CAP is considered part of the County General Plan. CAP preparation involves the following five steps, which follow the model created by the nonprofit organization ICLEI – Local Governments for Sustainability:

- ◆ Conduct a greenhouse gas emissions inventory
- ◆ Establish an emissions reduction target
- ◆ Develop a local action plan to reduce emissions
- ◆ Implement the local action plan
- ◆ Monitor progress and report on results

The County has conducted an emissions inventory for its government operations and its unincorporated areas, and will reevaluate these inventories on a regular basis to monitor its progress toward the reduction targets set forth in Resolution-2006-204. The Greenhouse Gases section of the EIR for this General Plan contains an emissions inventory for the Eden Area.

The County has initiated several other activities that support its GHG emissions reduction goals, including the following:

- ◆ In 2003, the County adopted Ordinance No. 2003-63, which mandated green building practices for certain County buildings. These practices were used in the development of the Leadership in Energy and Environmental Design (LEED) Gold-certified Juvenile Justice Center in San Leandro.
- ◆ Over 200 businesses, public agencies and non-profit organizations in Alameda County have been certified through the Alameda County Green Business Program.
- ◆ The County has installed solar and fuel cells at government facilities that have resulted in reduced energy usage and savings to taxpayers.
- ◆ The County has committed to reduce vehicle emissions associated with County operations through its fleet, which includes hybrids and vehicles fueled by vegetable-oil and biodiesel, and through its internal car-sharing program.
- ◆ In July 2007, Alameda County was the first county in California to sign the Cool Counties Initiative, committing to work with other jurisdictions at the national, State and local levels to reach the GHG emission reduction targets in Executive Order S-3-05.
- ◆ In April 2009, the County adopted a Green Building Ordinance (Ordinance No. 2009-16) requiring certain private development projects to comply with green building standards.
- ◆ The County has committed to implement a county-wide, assessment-based, energy efficiency and renewable energy program to enable county residents to install renewable energy systems and to improve the energy efficiency of their homes.

*B. Alameda County Community Climate Action Plan Process*

The Alameda County CAP (both the government and community portions) is a key component to implementing the County Board of Supervisor’s Resolution 2006-204 noted above. The CAP is intended to encompass and extend beyond the Eden Area General Plan 2025 timeframe. The CAP will implement emissions targets mandated by the State of California under AB32 that require the attainment of specific GHG reduction targets through 2050.

The CAP is intended to be the guiding document for the County’s government and community GHG reduction efforts. The CAP identifies measures (strategies, programs and policies) for implementation in the areas where the County has the greatest influence to reduce its internal and community-wide GHG emissions.

*C. Summary of General Plan Policies Addressing Climate Change*

This section provides a summary of the numerous goals and policies in other elements of the General Plan that facilitate a reduction in greenhouse gas emissions. These goals and policies acknowledge the role of land use and transportation patterns in reducing climate change impacts.

**1. Infill Development**

Policy P2 under Goal LU-1 of the Land Use Element is to encourage new development and redevelopment to create a coherent pattern of development, maximize the use of land and fill in gaps in the urban environment. Policy P4 under Goal LU-5 calls for allowing well-designed infill development that increases the density of existing neighborhoods. Policy P1 of Goal LU-6 is to encourage the redevelopment of underutilized deep lots to increase opportunities for a range of housing types. Goal LU-7 calls for the development of attractive corridors throughout the Eden Area that provide a mix of uses to surrounding neighborhoods, thereby reducing vehicle trips. Policy P3 under Goal LU-8 states that the County should pursue commercial and vertically-mixed use development within

districts. Policy P1 under Goal LU-14 requires that new commercial development be located in existing commercial areas that are well-served by public transit.

## **2. Alternative Transportation**

Under Goal LU-7 of the Land Use Element, Policy P7 mandates that public transit amenities be included with the approval of new development projects. Policy P8 requires new projects to maintain and strengthen pedestrian connections to major transit facilities such as BART, Amtrak and bus stops. Under Goal LU-17, Policy P1 requires analysis of new development projects under Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines, and the application of mitigation measures to reduce vehicle trips and vehicle miles traveled.

Under Goal CIR-1 of the Circulation Element, Policy P2 states that roadway modifications should include accommodations for bicycle and pedestrian travel, whenever possible. Policy P3 calls for promoting land use concepts that minimize automobile trips and encourage walking, bicycling and transit use, and Policy P6 mandates project-level design features to facilitate alternative modes of transportation in new developments. Action A7 directs the County to develop a local TDM program to identify realistic target reductions in automobile travel, and work with Eden Area employers to achieve these targets.

Goal CIR-5 is to ensure that public transit is a viable alternative to driving in the Eden Area. Under this goal, Policies P1 and P3 are to encourage AC Transit and BART to provide service throughout the Eden Area and to support efforts to enhance transit service, such as the extension of BART to San Jose and expanded bus service on East 14<sup>th</sup> Street/Mission Boulevard and Hesperian Boulevard.

Goal CIR-6 calls for the completion and improvement of the pedestrian circulation network in the Eden Area. Policy P1 states that walking should be considered an essential and integral part of the County's circulation network. Policy P8 calls for the provision of direct and safe pedestrian access routes between development and transit facilities, such as the Bayfair BART station, the Amtrak Capitol Corridor station in Hayward and major bus transit routes, to encourage

increased transit use. Policy P9 states that the pedestrian system shall have a high level of connectivity between residences and local, daily destinations, such as schools, shopping and parks.

Policies under Goal CIR-7 will lead to the development of safe and connected local and regional bicycle networks and facilities. Policy P2 requires the development and maintenance of a local bikeway system that serves employment centers, schools, parks and transit facilities, and Policy P4 calls for direct bicycle access between residential neighborhoods and transit stations.

### 3. Waste Reduction

In the Public Facilities and Services Element, Goal PF-8 is to decrease the volume of solid waste generated in the Eden Area through waste reduction, recycling and resource conservation. Policy P7 is to implement the County's Green Building Ordinance (Ordinance No. 2009-16) for residential and non-residential projects. Policy P8 requires the County to expand curbside recycling to all residential communities in Eden.

#### *D. Additional Goals, Policies and Actions*

<b>Goal GH-1    Reduce greenhouse gas emissions in the Eden Area.</b>
---

#### Policies

- P1. The County shall continue to participate in the ICLEI Climate Protection Program or a similar program designed to guide actions toward reductions in greenhouse gas emissions.
- P2. The County shall continue to participate in State and regional efforts to reduce greenhouse gas emissions.
- P3. The County's Climate Action Plan (CAP) shall be a guiding document for reductions of greenhouse gases in the Eden Area and shall be integrated into the County General Plan.

- P4. The County shall participate in regional and statewide efforts to improve the proportion of renewable energy available to energy customers in the Eden Area.

Actions

- A1. Reevaluate the government and community emissions inventories on a regular basis to monitor progress toward the County's emissions reduction targets set forth in Resolution-2006-204.
- A2. Review and, if appropriate, modify the Zoning and Subdivision Ordinances to support the emissions reduction targets of Resolution 2006-204 and the goals of the CAP.

<p><b>Goal GH-2 Prepare the Eden Area for the effects of climate change through the adoption of adaptation and resiliency strategies.</b></p>
---

Policies

- P1. The County shall participate in regional efforts focused on adapting communities to the effects of climate change.
- P2. The County shall work with cities on either side of the portion of San Lorenzo near the San Francisco Bay to evaluate threats due to sea level rise.

Actions

- A1. Adjust the CAP to reflect any new information about sea level rise or other negative effects of climate change that may impact the Eden Area.
- A2. The County will provide development guidelines to promote projects that are consistent with Senate Bill 375.

**Goal GH-3 Improve the energy efficiency of new and remodeled buildings in the Eden Area.**

Policies

- P1. New County-owned buildings in the Eden Area shall achieve a Leadership in Energy and Environmental Design (LEED) Silver certification (or higher) under the United States Green Building Council's LEED program, or equivalent certification.
- P2. New privately-developed construction and remodels above a certain size shall achieve certification under LEED, Build It Green GreenPoint Rated, or equivalent rating system. This policy shall be implemented through the County's Green Building Ordinance. New construction and remodels not required to achieve certification under the Green Building Ordinance shall be encouraged to incorporate green building techniques designed to reduce the energy and water use of new or remodeled buildings.
- P3. The County shall encourage the adaptive reuse of existing buildings, so long as they can be used efficiently or remodeled for energy-efficient operations.
- P4. The planting of trees should be required on the south- and west-facing sides of new buildings to reduce energy usage, unless trees would interfere with existing solar equipment.
- P5. New development projects should be designed to maximize passive solar energy techniques, including house orientation, street and lot layout, vegetation and protection of solar access. Maximum efficiency is gained by siting homes on an east-west axis.

Actions

- A1. Modify the Zoning and Subdivision Ordinances to reflect the energy efficiency measures outlined in this Goal.
- A2. Develop a green permitting program to encourage green building through fast-track permitting or reductions in permit fees correlated with the number of green features in the buildings.
- A3. Develop a green design assistance program including a checklist that applicants for new construction or remodels are asked to complete and that suggests ways that buildings could be more energy- and water-efficient.
- A4. Review and consider adopting the State Green Building Code and other ordinances designed to improve energy efficiency in buildings.
- A5. Train permit-review and planning staff in green building techniques and encourage them to integrate that information throughout their work.
- A6. Develop a program targeted at low-income homeowners to improve the energy-efficiency of existing buildings.
- A7. Consider the renewal of the County Green Building Ordinance when it sunsets.

## 10 GLOSSARY AND ACRONYMS

This section provides a list of common technical names, words and phrases utilized throughout the Eden Area General Plan and common in the field of planning. Definitions come from several sources, including the California Office of Planning and Research and the American Planning Association Glossary of Zoning, Development and Planning Terms.

### A. *Glossary*

#### **Acceptable Risk**

A hazard that is deemed to be a tolerable exposure to danger given the expected benefits to be obtained. The level of loss, injury or destruction below which no specific action by local government is deemed necessary other than making the risk known. Different levels of acceptable risk may be assigned according to the potential danger and the criticalness of the threatened structure. The levels may range from “near zero” for nuclear plants and natural gas transmission lines to “moderate” for farm structures and low-intensity warehouse uses.

#### **Acre-Foot**

The volume of water necessary to cover one acre to a depth of one foot. Equal to 43,560 cubic feet, 323,851 gallons or 1,233 cubic meters.

#### **Acreage, Gross**

The land area that exists prior to any dedications for public use, health and safety purposes.

#### **Acreage, Net**

The portion of a site that can actually be built upon, which is the land area remaining after dedication of ultimate rights-of-way for:

- ◆ Exterior boundary streets
- ◆ Flood ways
- ◆ Public parks and other open space developed to meet minimum standards required by County ordinance

- ◆ Utility Easements and rights-of-way may not be counted as net acreage

**Action**

An action is a program, implementation measure, procedure or technique intended to help achieve a specified objective. (See “Objective”)

**Active Solar System**

A system that uses a mechanical device, such as electric pumps or fans, in addition to solar energy to transport air or water between a solar collector and the interior of a building for heating or cooling. (See “Passive Solar System”)

**Adverse Impact**

A negative consequence for the physical, social, or economic environment resulting from an action or project.

**Affordability Requirements**

Provisions established by a public agency to require that a specific percentage of housing units in a project or development remain affordable to very low- and low-income households for a specified period.

**Allowable Building Height**

The vertical dimension between the finished grade on the site in question and the surface forming the upper surface of the view angle envelope.

**Alquist-Priolo Zones**

Alquist-Priolo Zones are the result of the Alquist-Priolo Earthquake Fault Zoning Act's, whose main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

**Ambient Noise Level**

The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.

**Archaeological Resource**

Material evidence of past human activity found below the surface of ground or water, portions of which may be visible above the surface.

**Arterials**

Major thoroughfares that carry large volumes of traffic at relatively high speeds. Arterials are designed to facilitate two or more lanes of moving vehicles in each direction and rarely contain on-street parking.

**Assisted Housing**

Generally multi-family rental housing, but sometimes single-family ownership units, whose construction, financing, sales prices or rents have been subsidized by federal, State or local housing programs including, but not limited, to Federal Section 8 (new construction, substantial rehabilitation and loan management set-asides), Federal Section 101 (rent supplement assistance), CDBG, FHA Section 515, multi-family mortgage revenue bond programs, local redevelopment and in-lieu fee programs and units developed pursuant to local inclusionary housing and density housing programs.

**Attainment Area**

A geographic area in which levels of a criteria air pollutant meet the health-based primary standard (national ambient air quality standard, or NAAQS) for the pollutant. An area may have an acceptable level for one criteria air pollutant, but may have unacceptable levels for others. Thus, an area could be both attainment and nonattainment at the same time. Attainment areas are defined using federal pollutant limits set by EPA.

**Augment**

To make greater or enlarge by grading.

**Average Daily Trips (ADT)**

The total volume passing a point or segment of a roadway facility, in both directions, during a 24-hour period. It is commonly obtained during a given

time period, in whole days greater than one day and less than one year, divided by the number of days in that time period.

**Average Dry Weather Flow (ADWF)**

The amount of wastewater that flows into a system on an average day during the dry weather part of the year.

**Base Flood Level**

The water surface level of a water course or waterbody that corresponds to a flood event that has a 1.0 percent chance of being equaled or exceeded in any given year (i.e., the 100-year flood). (See also “Floodway”, “Flood Zone”)

**Baseline Emissions**

The emissions that would occur without policy intervention (in a business-as-usual scenario). Baseline estimates are needed to determine the effectiveness of emissions reduction programs (often called mitigation strategies).

**Below-Market-Rate (BMR) Housing Unit**

(1) Any housing unit specifically priced to be sold or rented to low- or moderate-income households for an amount less than the fair-market value of the unit. Both the State of California and the U.S. Department of Housing and Urban Development set standards for determining which households qualify as “low-income” or “moderate-income.” (2) The financing of housing at less than the prevailing interest rates.

**Below Normal Year Water Yield**

A term used in planning for adequate water supplies. It is the amount of water that can be expected to be available 90 percent of the time. (See also “Normal Year” and Dry Year.”)

**Best Management Practices (BMPs)**

Guidelines for physical or administrative measures to prevent or reduce impacts to the natural environment, particularly water pollution or soil erosion.

**Bicycle Lane (Class II facility)**

A corridor expressly reserved for bicycles, existing on a street or roadway in addition to lanes for use by motorized vehicles.

**Bicycle Path (Class I facility)**

A paved route, not on a street or roadway, expressly reserved for bicycles traversing an otherwise unpaved area. Bicycle paths may parallel roads but are typically separated from them by landscaping.

**Bicycle Route (Class III facility)**

A roadway shared with motorists and identified only by signs, a bicycle route has no pavement markings or lane stripes.

**Bikeways**

A term that encompasses “bicycle lanes,” “bicycle paths” and “bicycle routes.”

**Biodiversity**

A wide variety of plants and animals within one community or habitat.

**Biotic Community**

A group of living organisms characterized by a distinctive combination of both animal and plant species in a particular habitat.

**Blight**

Areas with physical or economic challenges including building code violations, incompatible land uses, irregular parcel sizes, high business vacancies, an excess of bars, liquor stores or adult clubs, and a high crime rate.

**Buffer Zone**

An area established between potentially conflicting land uses, or agricultural and non-agricultural uses, which depending on the impact may utilize landscaping or structural barriers such as setbacks or roads.

**Building Height**

The vertical distance from the average contact ground level of a building to the highest point of the coping, whether a flat roof, the deck line of a mansard roof, or to the mean height level between eaves and ridge for a gable, hip, or gambrel roof. The exact definition varies by community. For example, in some communities building height is measured to the highest point of the roof, not including elevator and cooling towers.

**Buildout**

Development of land to its full potential, or theoretical capacity, as permitted under current or proposed planning or zoning designations. (See “Carrying Capacity (3).”)

**California Environmental Quality Act (CEQA)**

Legislation and corresponding procedural components established in 1970 by the State of California to require environmental review for projects anticipated to result in adverse impacts to the environment.

**Capital Improvements Program**

A program, administered by the County and reviewed by the Planning Commission, that schedules permanent improvements, usually for a minimum of five years in the future, that fits the projected fiscal capability of the local jurisdiction. The program generally is reviewed on an annual basis for conformance to and consistency with the General Plan.

**Carbon Dioxide (CO<sub>2</sub>)**

Colorless, odorless, non-poisonous gas that is a normal part of the ambient air. Carbon dioxide is a product of fossil fuel combustion. Although carbon dioxide does not directly impair human health, it is a greenhouse gas that traps terrestrial (i.e., infrared) radiation and contributes to the potential for global warming.

**Carbon Monoxide (CO)**

A colorless, odorless, highly poisonous gas produced by automobiles and other machines with internal combustion engines that imperfectly burn fossil fuels such as oil and gas.

**Carrying Capacity**

Used in determining the potential of an area to absorb development: (1) The level of land use, human activity or development for a specific area that can be permanently accommodated without an irreversible change in the quality of air, water, land, or plant and animal habitats. (2) The upper limits of development beyond which the quality of human life, health, welfare, safety or community character within an area will be impaired. (3) The maximum level of development allowable under current zoning. (See “Buildout”)

**City Limits**

The legal boundaries of the geographical area subject to the jurisdiction of incorporated city governments. For example, development application for properties located within incorporated cities must be reviewed by their respective City.

**Clean Air Act (CAA)**

The principle national legislation passed by Congress for air quality management. Originally passed in 1963, it was greatly changed and strengthened in 1970 and 1977. In 1990, the Clean Air Act Amendments introduced significant changes in the federal approach to air quality management.

**Collectors**

Collectors are roadways that connect local streets to “arterials.” They usually provide two travel lanes for automobiles, and may also have bicycle lanes.

**Community Noise Equivalent Level (CNEL)**

A 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7 PM

to 10 PM) and nighttime (10 PM to 7 AM) periods, respectively, to allow for the greater sensitivity to noise during these hours.

**Community Park**

A large park, generally 15 to 20 acres, that includes a mix of passive and active recreation areas that serve the entire community or a large portion of the community. A community park should include, but not be limited to, the facilities that are typically found at local parks as well as specialized facilities such as amphitheaters and skate parks.

**Compatible**

Capable of existing together without conflict or ill effects.

**Conditional Use Permit**

The discretionary and conditional review of an activity or function or operation on a site or in a building or facility.

**Conservation**

The management of natural resources to prevent waste, destruction or neglect.

**Consistent**

Free from variation or contradiction. Programs in the General Plan are to be consistent, not contradictory or preferential. State law requires consistency between a general plan and implementation measures, such as the zoning ordinance.

**Corridor**

Linear areas located along arterial roadways, typically one to two lots deep on either side of the road. They contain a mix of retail, office and residential uses.

**Criteria Air Pollutants**

A group of very common air pollutants regulated by EPA on the basis of criteria (information on health and/or environmental effects of pollution). Criteria air pollutants are widely distributed all over the country.

**Criteria/Criterion**

A standard upon which a judgment or decision may be based. (See “Standards.”)

**Cul-de-sac**

A short street or alley with only a single means of ingress and egress at one end and with a turnaround at its other end.

**Cultural Resources**

Includes historic, archaeological and paleontological resources, as well as human remains.

**Cumulative Impact**

As used in CEQA, the total environmental impact resulting from the accumulated impacts of individual projects or programs over time.

**Cut-Through Traffic**

Traffic that drives through an area without having an origin or destination in that area. Local cut-through traffic occurs when motorists drive through residential neighborhoods on local streets, instead of major or collector streets. Regional cut-through traffic occurs when motorists drive through the community on streets other than on a freeway, highway or expressway system.

**Day/Night Noise Level, Ldn**

The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.

**dba**

The “A-weighted” scale for measuring sound in decibels, which weighs or reduces the effects of low and high frequencies in order to simulate human hearing. Every increase of 10 dBA doubles the perceived loudness even though the noise is actually ten times more intense.

**Decibel (dB)**

A unit used to express the relative intensity of a sound as it is heard by the human ear. The lowest volume a normal ear can detect under laboratory conditions is 0 dB, the threshold of human hearing. Since the decibel scale is logarithmic, 10 decibels are ten times more intense and 20 decibels are a hundred times more intense than 1 db.

**Dedication**

The turning over by an owner or developer of private land for public use, and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. Dedications for roads, parks, school sites or other public uses are often required by a city or county as conditions for approval of a development. (See “in-lieu fee”)

**Dedication, In-lieu of**

Cash payment that may be required of an owner or developer as a substitute for a dedication of land, usually calculated in dollars per lot, and referred to as in-lieu fees or in-lieu contributions.

**Density**

The amount of development or people per unit of area or property. (See also “Density, residential” and “Floor Area Ratio”)

**Density Bonus**

The allocation of development rights that allow a parcel to accommodate additional square footage or additional residential units beyond the maximum for which the parcel is zoned, usually in exchanged for the provision or preservation of an amenity at the same site or at another location. Under Cali-

for law, a housing development that provides 20 percent of its units for lower income households, or 10 percent of its units for very low-income households, or 50 percent of its units for seniors, its entitled to a density bonus.

**Density, Residential (du/acre)**

The number of permanent residential dwelling units (d.u.) per acre of land. Densities specified in the General Plan are expressed in dwelling units per net acreage (du/acre), minus any land dedications, and not per gross acre. (See “Acres, Gross” and “Acres, Net”)

**Design Review**

The comprehensive evaluation of a development and its impact on neighboring properties and the community as a whole, from the standpoint of site and landscape design, architecture, materials, colors, lighting and signs, in accordance with a set of adopted criteria and standards.

**Density Transfer**

The concentration of density on one part of a site to another part of a site. This technique is used to preserve historic, sensitive or hazardous areas and to accommodate public facilities, such as schools, parks or utility easements on an individual parcel or within a specific project.

**Detention Basin**

An area designed to hold storm water runoff temporarily, in order to reduce the peak stormwater flow.

**Development Review; Design Review**

The comprehensive evaluation of a development and its impact on neighboring properties and the community as a whole, from the standpoint of site and landscape design, architecture, materials, colors, lighting and signs, in accordance with a set of adopted criteria and standards.

### **Development**

The physical extension and/or construction of non-farm land uses. Development activities include: subdivision of land; construction or alteration of structures, roads, utilities and other facilities; installation of septic systems; grading; deposit of refuse, debris or fill materials; and clearing of natural vegetative cover (with the exception of agricultural activities). The construction of a single-family home on an existing lot, and routine repair and maintenance activities, are exempted.

### **Disabled**

Persons determined to have a physical impairment or mental disorder, which is expected to be of long, continued or indefinite duration and is of such a nature that the person's ability to live independently could be improved by more suitable housing conditions.

### **District**

Areas of higher density development located along, but distinct from, Corridors in the Eden Area. They are important activity centers that draw employees, shoppers, residents and visitors to the Eden Area.

### **Drainage**

Two definitions: (1) Surface water runoff; and (2) the removal of surface water or groundwater from land by drains, grading, or other means that include runoff controls to minimize erosion and sedimentation during and after construction or development, the means for preserving the water supply and the prevention or alleviation of flooding.

### **Dry Year**

A term used in planning for adequate water supplies. The dry year is the most infrequent drought year, when the minimum amount of water is available. Statistically, this level would occur only once in one hundred years. This amount of water is less than or equal to what is available more than 99 percent of the time. (See also "Below Normal Year Water Yield" and "Normal Year.")

**Duplex**

A free-standing house divided into two separate living units or residences, usually having separate entrances.

**Dwelling Unit (d.u.)**

The place of customary abode of a person or household, which is either considered to be real property under State law or cannot be easily moved.

**Earthquake Fault Zone**

The State of California, Alquist-Priolo Earthquake Fault Zoning Act identifies sites within 1,000 foot wide zone with the fault at the center as Earthquake Fault Zones. The Alquist-Priolo Act requires that these sites undergo specialized geologic investigations prior to approval of certain new development. State law requires that these zones be incorporated into local general plans.

**Easement**

A legal agreement by a landowner that a specific part of his property may be used for a designated purpose. These agreements are intended to protect natural resources or farming/ranching uses. In the case of a utility easement, the landowner is authorizing the utility provider to use a part of the land to construct or access utility facilities.

**Ecosystem**

An interacting system formed by a biotic community and its physical environment.

**Effluent**

Liquid or partially solid waste such as is found in sewer systems or discharged from factories.

**Elderly**

Persons 65 years of age or older.

**Emission**

Discharges into the atmosphere from such sources as smokestacks, residential chimneys, motor vehicles, locomotives and aircraft.

**Endangered Species**

A species of animal or plant is considered to be endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes.

**Endemic Species**

Species native to, and restricted to, a particular geographical region.

**Entryway**

Entrance to an urban area, or to an important part of a community, along a major roadway.

**Environmental Impact Report (EIR)**

A report required pursuant to the California Environmental Quality Act (CEQA) that assesses all the environmental characteristics of an area, determines what effects or impacts will result if the area is altered or disturbed by a proposed action, and identifies alternatives or other measures to avoid or reduce those impacts. (See “California Environmental Quality Act.”)

**Equivalent Noise Level, Leq**

The average A-weighted noise level during the measurement period.

**Erosion**

(1) The loosening and transportation of rock and soil debris by wind, rain, or running water; and (2) the gradual wearing away of the upper layers of earth.

**Expansive Soils**

Soils that swell when they absorb water and shrink as they dry.

**Fault**

A fracture in the earth's crust that forms a boundary between rock masses that have shifted.

**Flag Lots**

A flag shaped parcel, with minimal street frontage and wide at the back. Such lots are created when narrow, deep parcels that once contained greenhouses or other agricultural uses are subdivided into two lots; a front lot with the bulk of the store frontage and the back flag lot.

**Flood Insurance Rate Map (FIRM)**

For each community, the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable to that community.

**Flood, 100-year**

The magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or one percent, chance of occurring in any give year.

**Floodplain**

The relatively level land area on either side of the banks of a stream regularly subject to flooding.

**Floodproofing**

Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water or sanitary facilities, structures and their contents (as defined by FEMA).

**Floodway**

The part of the floodplain capable of conveying the 100-year flood with no more than a one-foot rise in water. The floodway includes the river channel itself and adjacent land areas.

**Floodway Fringe**

The part of the floodplain outside the floodway. Development is typically allowed to encroach in this portion of the floodplain, providing certain constraints are met.

**Flood Zone**

The designated area delineated by FEMA on the Flood Information Rate Maps (FIRM) where flooding could occur during a “100-Year Flood.”

**Floor Area Ratio (FAR)**

The size of a building in square feet (gross floor area) divided by net land area, expressed as a decimal number. For example, a 60,000 square foot building on a 120,000 square-foot parcel would have a floor area ratio of 0.50. The FAR is used in calculating the building intensity of non-residential development.

**Frequency, Hz**

The number of complete pressure fluctuations per second above and below atmospheric pressure.

**Fugitive Dust**

Any particulate matter that does not come from a “point source” such as a smokestack. In Alameda County, dust from agricultural or construction activities are sources of fugitive dust. Like all particulate matter, fugitive dust can cause respiratory problems.

**General Plan**

A compendium of County policies regarding its long-term development, in the form of maps and accompanying text. The General Plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by the Board of Supervisors. In California, the General Plan has seven mandatory elements (Circulation, Conservation, Housing, Land Use, Noise, Open Space and Public Safety) and may include any number of optional elements the jurisdiction deems important.

**Geographic Information Systems (GIS)**

A method of storing geographic information on computers. Geographic information can be obtained from a variety of sources, including topographic maps, soil maps, aerial and satellite photos and remote sensing technology.

**Goal**

A description of the general desired results to create through the implementation of the General Plan. Goals are included in each element of the Plan and may include the key physical or community characteristics that residents wish to maintain or develop.

**Grade**

The average level of the finished surface of the ground adjacent to the exterior walls of the building.

**Grade, Existing**

The vertical elevation of the ground surface prior to excavating or filling.

**Gray water**

The less contaminated portion of domestic wastewater, including wash water from clothes washers and laundry tubs.

**Groundwater**

Water that exists beneath the earth's surface, typically found between saturated soils and rock, and is used to supply wells and springs.

**Group Quarters**

A residential living arrangement, other than the usual house, apartment or mobile home, in which two or more unrelated persons share living quarters and cooking facilities. Institutional group quarters include nursing homes, orphanages and prisons. Non-institutional group quarters include dormitories, shelters and large boarding houses.

**Growth Management**

The use by a community of a wide range of techniques in combination to determine the amount, type and rate of development desired by the community and to channel that growth into designated areas. Growth management policies can be implemented through building permit caps, public facilities/infrastructure ordinances, urban limit lines, standards for levels of service, phasing, and other programs.

**Habitat**

The physical location or type of environment in which an organism or biological population lives or occurs.

**Hazardous Waste**

Any refuse or discarded material or combinations of refuse or discarded materials in solid, semisolid, liquid, or gaseous form which cannot be handled by routine waste management techniques because they pose a substantial present or potential hazard to human health or other living organisms because of their chemical, biological, or physical properties.

**High Occupancy Vehicle (HOV)**

Traffic lanes that are designated and reserved for vehicles with a minimum number of passengers during high-volume commute hours, in order to encourage carpooling through faster travel. They are enforced with fines and traffic tickets.

**Historic Preservation**

The preservation of historically significant structures and neighborhoods in order to facilitate restoration and rehabilitation of the building(s) to a former condition.

**Historic Structure**

Any structure that is (a) listed in the National Register of Historic Places or is eligible for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the

historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; or (c) designated by the city as a heritage preservation site.

**Household**

All persons occupying a single dwelling unit.

**Household, Family**

Two or more related persons occupying a dwelling unit.

**Household, Non-Family**

A single person living alone, or two or more unrelated persons sharing a dwelling unit.

**Impact Fee**

A fee charged to a developer by a jurisdiction according to the proposed development project, typically by number of units, square footage or acreage. The fee is often used to offset costs incurred by the municipality for services and infrastructure such as schools, roads, police and fire services, and parks.

**Impervious Surface**

Surface through which water cannot penetrate, such as a roof, road, sidewalk, and paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.

**Implementation**

Actions, procedures, programs or techniques that carry out policies.

**Infill Development**

Development that occurs on vacant or underutilized land within areas that area already largely developed. All of the land in the Eden Area is considered infill.

**In-lieu fee**

Cash payments that may be required of an owner or developer as a substitute for a dedication of land for public use, usually calculated in dollars per lot, and referred to as in-lieu fees or in-lieu contributions. (See “dedication”)

**Integrated Pest Management (IPM)**

A strategy for controlling pests that utilizes a combination of non-chemical methods, such as manipulating habitat, using disease-resistant strains of plants and changing farming practices. The goal of IPM is to reduce the use of pesticides and the amount of pesticides in the environment.

**Jobs/Housing Balance**

A measure of the number of jobs available in a specific area compared to the number of employed residents living in the housing units in the same area. Jobs/Housing balance does not evaluate the type of jobs available or whether the employees in the jobs are the same people as the employed residents living in the households.

**Jobs/Housing Ratio**

The jobs/housing balance divides the number of jobs in an area by the number of employed residents. A ratio of 1.0 indicates a balance. A ratio greater than 1.0 indicates a net in-commute; less than 1.0 indicates a net out-commute.

**Land Use**

The occupation or utilization of an area of land for any human activity or any purpose.

**Land Use Designation**

One particular category in a classification series of appropriate use of properties established by the General Plan Land Use Element.

**L<sub>max</sub>, L<sub>min</sub>**

The maximum and minimum A-weighted noise level during the measurement period.

**L<sub>01</sub>, L<sub>10</sub>, L<sub>50</sub>, L<sub>90</sub>**

The A-weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent and 90 percent of the time during the measurement period.

**Leadership in Energy and Environmental Design (LEED)**

A voluntary, consensus-based national standard for developing and rating high-performance, sustainable “green” buildings. LEED provides a complete framework for assessing building performance and meeting sustainability goals, such as water savings, energy efficiency, materials selection and indoor environmental quality. LEED standards are currently available or under development for: new commercial construction and major renovation projects, existing building operations, commercial interiors projects, core and shell projects, and homes.

**Level of Service (LOS) Standard**

A standard used by government agencies to measure the quality or effectiveness of a municipal service, such as police, fire or library, or the performance of a facility, such as a street or highway.

**LOS, Traffic**

A scale that measures the amount of traffic that a roadway or intersection can accommodate, based on such factors as maneuverability, driver dissatisfaction and delay.

**LOS A**

A relatively free flow of traffic, with little or no limitation on vehicle movement or speed.

**LOS B**

Describes a steady flow of traffic, with only slight delays in vehicle movement and speed. All queues clear in a single signal cycle.

**LOS C**

Denotes a reasonably steady, high-volume flow of traffic, with some limitations on movement and speed, and occasional backups on critical approaches.

**LOS D**

Designates the level where traffic nears an unstable flow. Intersections still function, but short queues develop and cars may have to wait through one signal cycle during short peaks.

**LOS E**

Represents traffic characterized by slow movement and frequent (although momentary) stoppages. This type of congestion is considered severe, but is not uncommon at peak traffic hours, with frequent stopping, long-standing queues and blocked intersections.

**LOS F**

Describes unsatisfactory stop-and-go traffic characterized by “traffic jams” and stoppages of long duration. Vehicles at signalized intersections usually have to wait through one or more signal changes, and “upstream” intersections may be blocked by the long queues.

**Liquefaction**

The transformation of loose water saturated granular materials (such as sand or silt) from a solid into a liquid state. A type of ground failure that can occur during an earthquake.

**Local Agency Formation Commission (LAFCO)**

A five- or seven-member commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts and merger of districts with cities. Each county's LAFCO is empowered to approve, disapprove, or conditionally approve such proposals.

**Local Park**

Small sized park, usually 3 to 10 acres, that provide recreation activities for a specific neighborhood within a ½ to ¾ mile radius.

**Local Street**

Provides direct access to properties; generally they carry the lowest traffic volumes.

**Maximum Credible Earthquake**

The maximum credible earthquake is defined as the earthquake which produces the greatest levels of ground motion at the site as a result of the largest magnitude earthquake that could reasonably occur along the recognized faults or within a particular seismic source.

**Mercalli Intensity Scale**

A subjective measure of the observed effects (human reactions, structural damage, geologic effects) of an earthquake. Expressed in Roman numerals from I to XII.

**Mitigation**

Measures taken to eliminate or minimize damages from development activities by replacement of the resource or other means of compensation.

**Mixed Use**

Any mixture of land uses on a single parcel, including mixtures of residences with commercial, offices with retail, or visitor accommodation with offices and retail. As distinguished from a single use land use designation or zone, mixed use refers to an authorized variety of uses for buildings and structures in a particular area.

**Mix of Uses**

Any mixture of uses, such as retail, office, residential or general commercial in close proximity spread over a small area.

**Mobile Home**

A structure, transportable in one or more sections, built on a permanent chassis and designed for use as a single-family dwelling unit and which: (1) has a minimum of 400 square feet of living space; (2) has a minimum width in excess of 102 inches; (3) is connected to all available permanent utilities; and (4) is tied down (a) to a permanent foundation on a lot either owned or leased by the homeowner or (b) is set on piers, with wheels removed and skirted, in a mobile home park.

**Mobile Home Park**

A parcel of land under one ownership that has been planned and improved for the placement of two or more mobile homes for rental purposes for non-transient use.

**Modes**

Various means of transportation, including private autos, taxis, local buses, interregional bus service, light rail systems, heavy rail service and air transportation.

**Moment Magnitude (M<sub>w</sub>)**

Moment magnitude is based on the seismic moment at the source, or hypocenter, of the earthquake. The moment magnitude scale is a way of rating the seismic moment of an earthquake with a simple, logarithmic numerical scale

similar to the original Richter magnitude scale. Because it does not "saturate" the way local magnitude does, it is used for large earthquakes -- those that would have a local magnitude of about 6 or larger.

**National Pollutant Discharge Elimination System (NPDES)**

The national program for controlling discharges of pollutants from point sources (e.g., municipal sewage treatment plants, industrial facilities) into the waters of the United States.

**National Register of Historic Places**

The listing maintained by the US National Park Service of areas that have been designated as historically significant.

**Native Species**

A species that arrived in a particular area without human interference.

**Natural Habitat Area**

An area that sustains animal and vegetative biotic resources that has not been improved or disturbed. Natural Habitat Areas can also be areas that were previously "disturbed" and have been reclaimed or rehabilitated.

**Neighborhood**

Relatively large residential areas that have some common characteristics, such as a common history, common physical characteristics (such as architectural style), a common meeting place or more intangible characteristics (such as a psychological sense of cohesion).

**Nitrogen Oxide(s)**

A reddish brown gas that is a byproduct of combustion and ozone formation processes. Often referred to as NO<sub>x</sub>, this gas gives smog its "dirty air" appearance.

**Nitrogen Oxides (NO<sub>x</sub>)**

Gases consisting of one molecule of nitrogen and varying numbers of oxygen molecules. Nitrogen oxides are produced, for example, by the combustion of fossil fuels in vehicles and electric power plants. In the atmosphere, nitrogen oxides can contribute to formation of photochemical smog, impair visibility and have health consequences; they are considered pollutants.

**Noise**

Any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. Noise, simply, is “unwanted sound.”

**Noise Attenuation**

Reduction of the level of a noise source using a substance, material, or surface, such as earth berms and/or solid concrete walls.

**Noise Contour**

A line connecting points of equal noise level as measured on the same scale. Noise levels greater than the 60 Ldn contour (measured in dBA) require noise attenuation in residential development.

**Nonattainment Zone**

A designation assigned to an area when the levels of a specific pollutant or pollutants in the air fail to meet (or attain) federal or State standards for that pollutant.

**Non-Conforming Use**

A use that was valid when brought into existence, but no longer permitted by later regulation. “Non-conforming use” is a generic term and includes: (1) non-conforming structures (because their size, type of construction, location on land, or proximity to other structures is no longer permitted); (2) non-conforming use of a conforming building; (3) non-conforming use of a non-conforming building; and (4) non-conforming use of land. Any use lawfully

existing on any piece of property that is inconsistent with a new or amended General Plan, and that in turn is a violation of a zoning ordinance amendment subsequently adopted in conformance with the General Plan, will be a non-conforming use. Typically, non-conforming uses are permitted to continue for a designated period of time, subject to certain restrictions.

**Non-Native Species**

A species that was introduced to an area as a result of human interference.

**Non-Point Source Pollution**

Sources for pollution that are less definable and usually cover broad areas of land, such as automobiles or agricultural fertilizers that are carried from the land by runoff.

**Normal Year**

A term used in planning for adequate water supplies. Refers to those years when the County can expect to receive all of the water it has contracted to receive (entitlement). This is because supply conditions (e.g., the amount of rain and snow collected in reservoirs, groundwater availability) are normal. Based on historical experience, normal years occur 63 percent of the time. (See also “Below Normal Year Water Yield” and “Dry Year.”)

**Objective**

A specific statement of desired future condition toward which the County will expend effort in the context of striving to achieve a broad goal. An objective should be achievable and, where possible, should be measurable and time-specific. The State Government Code (Section 65302) requires that general plans spell out the “objectives,” principles, standards and proposals of the general plan. “The addition of 100 units of affordable housing by 1995” is an example of an objective.

**Open Space**

Land and water areas retained for use as active or passive recreation areas or for resource protection in an essentially undeveloped state.

**Overlay**

A land use designation on the Land Use Map, or a zoning designation on a zoning map, that modifies the basic underlying designation or designations in some specific manner.

**Ozone**

A colorless gas with a pungent odor, having the molecular form of O<sub>3</sub>, found in two layers of the atmosphere, the stratosphere (about 90 percent of the total atmospheric loading) and the troposphere (about 10 percent). Ozone is a form of oxygen found naturally in the stratosphere that provides a protective layer shielding the Earth from ultraviolet radiation's harmful health effects on humans and the environment. In the troposphere, ozone is a chemical oxidant and major component of photochemical smog. Ozone can seriously affect the human respiratory system.

**Parcel**

A lot, or contiguous group of lots, in single ownership or under single control, usually considered a unit for purposes of development.

**Particulate Matter (PM)**

Solid particles or liquid droplets suspended or carried in the air (e.g., soot, dust, fumes, mist).

**Particulate Matter (PM<sub>10</sub>)**

A criteria air pollutant. Particulate matter includes dust, soot and other tiny bits of solid materials that are released into and move around in the air. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, mixing and application of fertilizers and pesticides, road construction, industrial processes such as steel making, mining operations, agricultural burning (field and slash burning) and operation of fireplaces and woodstoves. Particulate pollution can cause eye, nose and throat irritation and other health problems.

**Peak Hour**

For any given roadway, the daily one-hour period during which traffic volume is the highest.

**Pedestrian-Oriented Design**

An approach to site and neighborhood design intended to facilitate movement on foot in an area, as opposed to design that primarily serves and encourages automobile movement. Examples of pedestrian-oriented design include pathways following the most direct route from sidewalk to front door, continuous building streetwalls with shop windows, outdoor cafes, street trees and benches.

**Plan Area**

The Plan Area is the land area addressed by the General Plan. The Plan Area does not lead to regulatory powers inside of city limits. Instead, it signals to the incorporated cities, and to other nearby local and regional authorities, that County residents recognize that development within this area has an impact on the future of their community, and vice versa. Under State law, adjacent cities will be invited to comment on development within the Plan Area that is subject to review by the County. (See also “Sphere of Influence”)

**Planned Unit Development (PUD)**

A description of a proposed unified development, consisting at a minimum of a map and adopted ordinance setting forth the governing regulations, and the location and phasing of all proposed uses and improvements to be included in the development.

**Policy**

A specific statement of principle or of guiding actions that implies clear commitment but is not mandatory. A general direction that a governmental agency sets to follow, in order to meet its goals and objectives before undertaking an implementing action or program. (See “Action”)

**Pollutant**

Any introduced gas, liquid, or solid that makes a resource unfit for its normal or usual purpose.

**Programmatic Agreement (PA)**

A framework for ensuring site artifacts are identified and assessed for interpretive or educational value. It is a document that records the terms and conditions agreed upon to resolve the potential adverse effects of a Federal agency program, complex undertaking or other situations in accordance with Sec. 800.14(b).

**Quasi-Public**

A use or a facility that is open to the public but is owned and/or operated by an organization other than a government entity, such as a non-profit organization or a religious group.

**Recharge Areas**

Important points between surface water and aquifers such as gravel pits, stream channel deposits and river wash, which are areas of State, regional and local significance. These areas consist of loose, well-sorted sand, gravel and boulders.

**Recreational Corridor**

Typically linear pathways, bikeways or open space areas that weave in and around urban uses to provide recreational and transportation amenities to residents.

**Regional Park**

A large park, typically more than 100 acres, that serves the open space and recreation needs for all users of the entire Eden Area. Regional parks contain active and passive recreation areas and may also include natural open space.

**Remediation**

The action or measures taken, or to be taken, to lessen, clean-up, remove, or mitigate the existence of hazardous materials existing on the property to such standards, specifications, or requirements as may be established or required by federal, state, or county statute, rule, or regulation.

**Richter Scale**

A measure of the size or energy release of an earthquake at its source. The scale is logarithmic; the wave amplitude of each number on the scale is 10 times greater than that of the previous whole number.

**Right-of-Way (ROW)**

Publicly-owned land, property or interest therein, usually in a strip, within which the entire road facility, including travel lanes, medians, sidewalks, shoulders, planting areas and utility easements must reside. The ROW is usually defined in feet, and is acquired for or devoted to multi-modal transportation purposes including bicycle, pedestrian, public transportation and vehicular travel.

**Riparian Corridor**

A habitat and vegetation zone which is associated with the banks and floodplains of a river, stream or lake. Riparian trees and shrubs are typically phreatophytes, plants whose root systems are in constant contact with groundwater.

**Runoff**

That portion of rain or snow that does not percolate into the ground and is discharged into streams instead.

**Scenic Feature**

An element of the landscape having beauty, historical significance or other characteristics making it worthy of preservation as a visual feature.

### **Scenic Route**

A highway, street or other roadway having one or more of the following characteristics:

- ◆ Inherent beauty by virtue of its own design or the character of that land through which it traverses.
- ◆ Provides the major access to or between major scenic, recreational or cultural attractions.
- ◆ Provides a vista or view of the East Bay hills or the Bay as a whole or of areas having noted beauty worthy of preservation.

### **Section 106**

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their actions on historic properties and seek comments on their actions from an independent reviewing agency.

### **Seiche**

An earthquake generated wave in an enclosed body of water such as a lake, reservoir, or bay.

### **Seismic**

Caused by or subject to earthquakes or earth vibrations.

### **Seismic Hazard Zone**

The State of California, Seismic Hazards Mapping Act identifies areas within the state where landslides and liquefaction are most likely to occur. The Act requires special investigation of these sites before some types of buildings may be constructed. Property owners must disclose that property lies within such a zone at the time of sale.

### **Semi-Public Space**

An area, either interior or exterior, which is owned and managed by a private entity but which is used by the public.

**Sensitive Receptors**

Uses sensitive to noise such as residential areas, hospitals, convalescent homes and facilities, and schools.

**Slope**

Land gradient described as the vertical rise divided by the horizontal run, and expressed in percent.

**Solid Waste**

Any unwanted or discarded material that is not a liquid or gas. Includes organic wastes, paper products, metals, glass, plastics, cloth, brick, rock, soil, leather, rubber, yard wastes and wood, but does not include sewage and hazardous materials. Organic wastes and paper products comprise about 75 percent of typical urban solid waste.

**Special Precincts**

Portions of the Eden Area where unique and necessary uses are located and that usually contain a single type of use.

**Specific Plan**

Under Article 8 of the Government Code (Section 65450 et seq), a legal tool for detailed design and implementation of a defined portion of the area covered by a General Plan. A specific plan may include all detailed regulations, conditions, programs, and/or proposed legislation which may be necessary or convenient for the systematic implementation of any General Plan element(s). (See also “Planned Unit Development”)

**Sphere of Influence (SOI)**

The probably physical boundaries and service area of the city, as determined by the Local Agency Formation Commission (LAFCO) of the county.

**Step Slope**

An area with a greater than five percent slope.

**Townhouse/Townhome**

A series of residences, often two to three stories in height, that are connected side by side in a row with each having a separate street-level entrance.

**Traffic Calming**

Measures designed to reduce motor vehicle speeds and to encourage pedestrian use, including:

- ◆ narrow streets
- ◆ tight turning radii
- ◆ sidewalk bulbouts
- ◆ parking bays
- ◆ textured paving at intersections
- ◆ parkways between sidewalks and streets

**Traffic Model**

A computer software tool used to project future traffic volume based on future land uses and roadway conditions.

**Transit**

Travel of persons and goods through means other than personal, private motor vehicles, travel by bus, light rail or taxi.

**Transit Oriented Development (TOD)**

Residential and commercial areas designed to maximize access by public transportation, such as trains and buses. TODs typically have a neighborhood center with a transit station, surrounded by relatively high-density development, with progressively lower-density spreading outwards.

**Transportation System/Circulation Network**

A network of transit, automobile, bicycle and pedestrian rights-of-way that connect origins and destinations, allowing for movement of goods and people.

**Transportation System Management**

A strategy for reducing peak-hour vehicular volumes through a coordinated program of alternative mode incentives such as transit, vanpools, bicycles and staggered working hours.

**Trip Generation**

The dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use for a transportation system and the impact of additional development or transportation facilities on an existing, local transportation system.

**Triplex**

A free-standing house divided into three separate living units or residences, usually having separate entrances.

**Truck Route**

A path of travel for all vehicles exceeding set weight or axle limits; a truck route generally follows major streets through commercial and industrial areas, avoiding sensitive residential areas.

**Tsunami**

A large ocean wave generated by an earthquake in or near the ocean.

**Unincorporated Area**

Encompasses properties that are located outside of cities. Development in an unincorporated area is subject to County jurisdiction.

**Urban Growth Boundary (UGB)**

A legal line around a developed area that delineates the maximum allowable extent of physical development. Urban growth boundaries are usually intended to prevent development from encroaching on open space and natural resources.

**Use**

The purpose for which a lot or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered and/or enlarged in accordance with the County zoning ordinance and General Plan land use designations.

**Use, Non-conforming**

(See “Non-conforming Use”)

**Utility Corridor**

Rights-of-way or easements for utility lines on either publicly or privately owned property.

**Vehicle Miles Traveled (VMT)**

A key measure of overall street and highway use. Reducing VMT is often a major objective in efforts to reduce vehicular congestion and achieve regional air quality goals.

**View Angle**

The angle of view from the horizontal to the ridgeline or selected hillsides, vistas and features from a viewpoint.

**View Corridor**

An area established by the Scenic Route policies in which the place and/or height of development is regulated to maintain identified views.

**Volume-to-Capacity Ratio (V/C Ratio)**

A measure of roadway operation based on the number of vehicles passing through a particular road segment divided by the theoretical maximum design capacity of the segment.

**Waste Diversion**

Any combination of recycling, reuse, composting activities, decrease in consumption, or increase in durability that reduces the amount of waste transported to and disposed of at landfills.

**Wastewater**

Water that has already been used for washing, flushing, or in a manufacturing process, and therefore contains waste products such as sewage or chemical by-products.

**Wastewater Irrigation**

The process by which wastewater that has undergone appropriate treatment is used to irrigate land.

**Watercourse**

A lake, river, creek, stream, wash, arroyo, channel or other topographic feature, which water flow on or over, at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

**Watershed**

All of an area that drains to a particular body of water, such as a lake, river or wetland.

**Wetland**

An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

**Williamson Act Contract**

An agreement under the California Land Conservation Act of 1965, commonly referred to as the Williamson Act, which enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return,

landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

**Zoning**

The division of a County by ordinance or other legislative regulation into districts or zones, which specify allowable uses for real property and size restrictions for buildings constructed in these areas; a program that implements the land use policies of the General Plan.

**Zoning District**

A designated area of the County for which prescribed land use requirements and building and development standards are or will be established.

*B. Acronyms*

<b>AB:</b>	Assembly Bill
<b>ADT:</b>	Average daily trips made by vehicles or persons in a 24-hour period
<b>ADWF:</b>	Average dry weather flow (of influent wastewater)
<b>ALUC:</b>	Airport Land Use Commission (Alameda County)
<b>ARB:</b>	Air Resources Board (California)
<b>AST:</b>	Aboveground Storage Tank
<b>BAAQMD:</b>	Bay Area Air Quality Management District
<b>BART:</b>	Bay Area Rapid Transit
<b>CAAQS:</b>	California Ambient Air Quality Standards
<b>CALTRANS:</b>	California Department of Transportation
<b>CAP:</b>	Clean Air Plan
<b>CARB:</b>	California Air Resources Board
<b>CCR:</b>	California Code of Regulations
<b>CDFG:</b>	California Department of Fish and Game
<b>CEQA:</b>	California Environmental Quality Act
<b>CESA:</b>	California Endangered Species Act

<b>CFS:</b>	Cubic Feet Per Second
<b>CIP:</b>	Capital Improvements Program
<b>CIWMB:</b>	California Integrated Waste Management Board
<b>CMP:</b>	Congestion Management Program
<b>CNDDDB:</b>	California Natural Diversity Database
<b>CNEL:</b>	Community Noise Equivalent
<b>CNPS:</b>	California Native Plant Society
<b>CO:</b>	Carbon Monoxide
<b>CORPS:</b>	US Army Corps of Engineers
<b>dB:</b>	Decibel
<b>dBA:</b>	A-Weighted Sound Level
<b>DTSC:</b>	Department of Toxic Substances Control
<b>DU/AC:</b>	Dwelling units per acre
<b>DU:</b>	Dwelling units
<b>EBMUD:</b>	East Bay Municipal Utilities District
<b>EBRPD:</b>	East Bay Regional Parks District
<b>EIR:</b>	Environmental Impact Report (State)
<b>EPA:</b>	Environmental Protection Agency (US)
<b>FAA:</b>	Federal Aviation Administration
<b>FAR:</b>	Floor Area Ratio
<b>FEMA:</b>	Federal Emergency Management Agency
<b>FHWA:</b>	Federal Highway Administration
<b>FIRM:</b>	Flood Insurance Rate Map
<b>HARD:</b>	Hayward Area Recreation and Parks District
<b>HOV:</b>	High Occupancy Vehicle
<b>HSC:</b>	California Health and Safety Code
<b>Hz:</b>	Frequency
<b>JPA:</b>	Joint Powers Authority
<b>LAFCO:</b>	Local Agency Formation Commission
<b>Ldn:</b>	Day/Night Average Level
<b>LEED:</b>	Leadership in Energy and Environmental Design
<b>Leq:</b>	Average noise levels
<b>LOS:</b>	Level of Service
<b>MG:</b>	Million gallons

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
GLOSSARY

<b>MGD:</b>	Million gallons per day
<b>MRF:</b>	Material Recovery Facility
<b>MTC:</b>	Metropolitan Transportation Commission
<b>Mw:</b>	Moment Magnitude
<b>NAAQS:</b>	National Ambient Air Quality Standard
<b>NO<sub>2</sub>:</b>	Nitrogen Dioxide
<b>NO<sub>x</sub>:</b>	Nitrogen Oxides
<b>NPDES:</b>	National Pollutant Discharge Elimination System
<b>O<sub>3</sub>:</b>	Ozone
<b>ONC:</b>	State Office of Noise Control
<b>PM<sub>10</sub>:</b>	Particulate matter less than 10 micrometers in diameter
<b>PM<sub>2.5</sub>:</b>	Particulate matter less than 2.5 micrometers in diameter
<b>PD:</b>	Planned Development
<b>PPM:</b>	Parts per million
<b>PUD:</b>	Planned Unit Development
<b>PZ:</b>	Pressure Zone
<b>RWQCB:</b>	Regional Water Quality Control Board
<b>SB:</b>	Senate Bill
<b>SEMS:</b>	Standardized Emergency Management System
<b>sf.:</b>	Square footage
<b>SFPUC:</b>	San Francisco Public Utilities Commission
<b>SO<sub>2</sub>:</b>	Sulfur Dioxide
<b>SOI:</b>	Sphere of Influence
<b>TACs:</b>	Toxic Air Contaminants
<b>TCMs:</b>	Transportation Control Measures
<b>TDM:</b>	Transportation Demand Management
<b>TRB:</b>	Transportation Research Board
<b>UCB:</b>	Uniform Building Code
<b>UPRR:</b>	Union Pacific Railroad
<b>URM:</b>	Unreinforced Masonry
<b>USFWS:</b>	United States Fish and Wildlife Service
<b>USGS:</b>	United States Geological Survey
<b>UWMP:</b>	Urban Water Management Plan
<b>V/C:</b>	Volume-to-Capacity Ratio

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
GLOSSARY

**VMT:** Vehicle Miles Traveled  
**WTP:** Water Treatment Plant  
**WWII:** World War II

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
GLOSSARY

*This page intentionally blank.*

## II LIST OF PREPARERS

### A. Report Preparers

#### Lead Consultant:

Design, Community & Environment  
1625 Shattuck Avenue, Suite 300  
Berkeley, CA 94709 510-848-3815

David Early, AICP, LEED AP, Principal-in-Charge  
Sophie Mintier, LEED AP, Project Manager  
Steve Noack, AICP, Principal  
Matthew Raimi, AICP  
Richard Kos, GIS Manager  
Sue Beazley, Associate  
Ellen Clark, Associate  
Dahlia Chazan, Associate  
Ricardo Bressanutti, Project Planner  
Sarah Pulleyblank Patrick, Project Planner  
Anita Hairston, Project Planner  
José Moreno, Project Planner

#### Subconsultants:

##### *Traffic and Circulation*

Fehr & Peers Associates  
Matthew Ridgway, AICP, Principal  
Colin Burgett, AICP, Senior Transportation Planner  
Matt Haynes, P.E., Transportation Engineer  
Chris Mitchell, P.E., Transportation Engineer  
Todd T. Henry, Transportation Planner

##### *Noise*

Illingworth and Rodkin, Inc.  
Rich Rodkin, P.E., Principal  
James Reyff, Senior Consultant

*Market and Economic Analysis*

Bay Area Economics

Janet Smith-Heimer, Managing Principal

Paul Peninger, Senior Associate

*Urban Design/Historic Resources*

Jay Claiborne

***B. Board of Supervisors, Planning Commission, and County Staff***

The General Plan Consultant team was assisted and advised by the County Board of Supervisors, Planning Commission, and County Staff. These included:

*Board of Supervisors*

Alice Lai-Bitker, President

Nate Miley, Vice-President

Keith Carson

Scott Haggerty

Gail Steele

*Planning Commission*

Ken Carbone

Compton Gault (former Commissioner)

Richard Hancocks (former Commissioner)

Michael Jacob

Frank Imhof

Glenn Kirby

Alane Loisel

Edith Looney (former Commissioner)

Kathie Ready

Richard Rhodes

Lena Tam (former Commissioner)

Apolinario Ysit (former Commissioner)

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
LIST OF PREPARERS

*Community Development Agency*

Chris Bazar, Agency Director

Albert Lopez, Planning Director

Liz McElligott, Assistant Deputy Director

Sandi Rivera, Assistant Planning Director

Cindy Horvath, Senior Transportation Planner

Lou Andrade, Planner III

COUNTY OF ALAMEDA  
EDEN AREA GENERAL PLAN  
LIST OF PREPARERS

*This page intentionally blank*